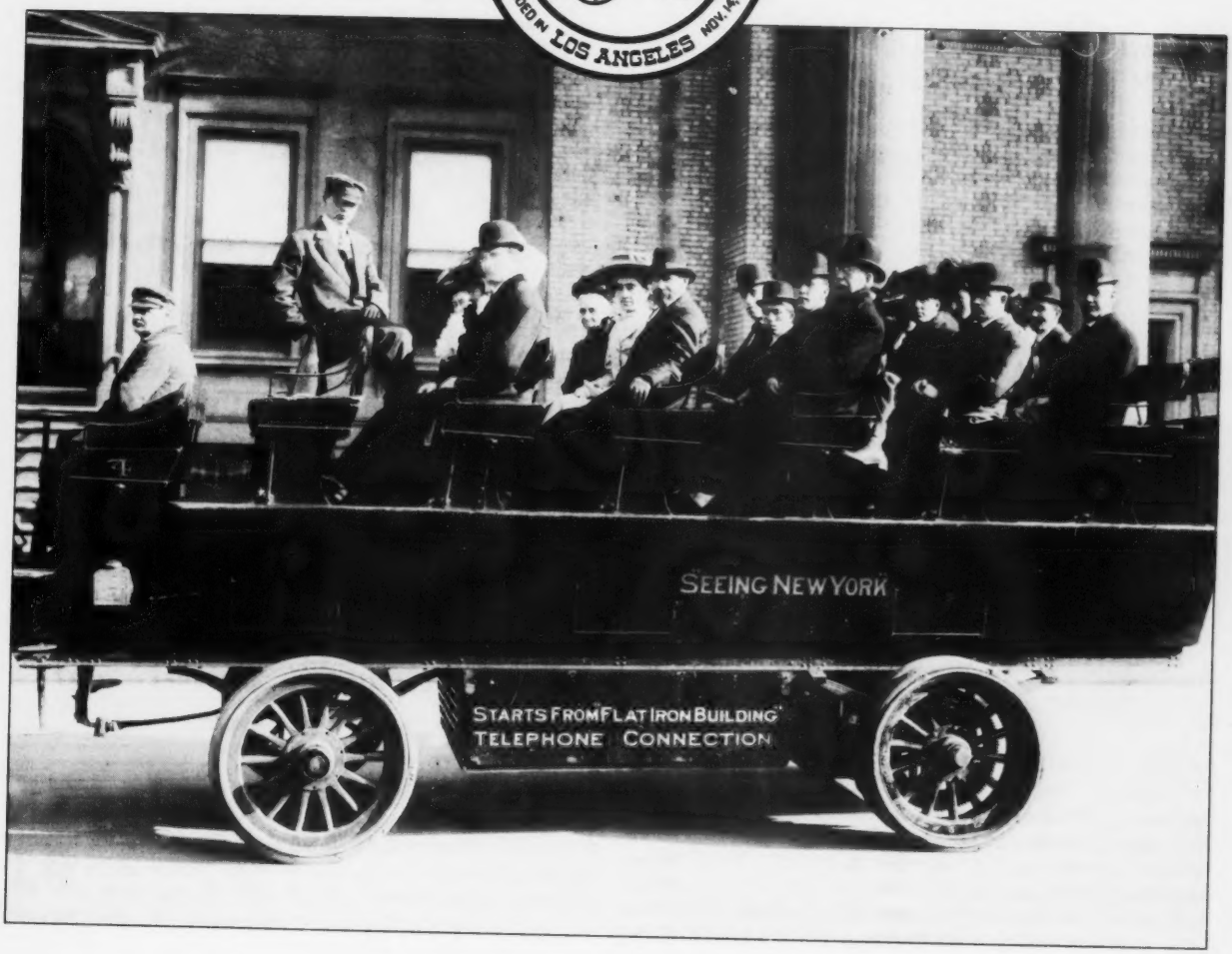
APR 5 1948

THE HORSELESS CARRIAGE CLUB GAZETTE

MARCH 1948 VOLUME 10 NUMBER 1



AN UNOBSTRUCTED VIEW & LOTS OF FRESH AIR

THE HORSELESS CARRIAGE CLUB

Founded in Los Angeles - November 14th, 1937
P. O. BOX 503, WEST LOS ANGELES 5, CALIFORNIA

A non-profit corporation founded by and for Automotive Antiquarians and dedicated to the preservation of the old time automobiles together with their accessories, archives and romantic lore.

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MEMBERSHIP CLASSIFICATION

By action of the Board of Directors of the Horseless Carriage Club, classes of membership and dues have been fixed as follows:

1. ACTIVE MEMBERS. Have privilege of voting. Dues for new members will be $10.00; $5.00 for Initiation Fee, and $5.00 for 1948 Dues.

2. ASSOCIATE MEMBERS. Have all the privileges of the Club except voting. Dues for new members in Southern California are $5.00 $2.00 for Initiation Fee, and $3.00 for 1948 Dues. Members living outside of Southern California pay $3.00 Dues, no initiation fee.

3. LIFE MEMBERS. Have all the privileges of the Club, including voting, for life, by payment of $100.00 Dues.

4. HONORARY MEMBERS. Have all privileges of the Club, except voting.

Minors, and Wives of members pay $3.00 a year Membership Dues and pay no initiation fee. Have all privileges of the Club except voting.

THE HORSELESS CARRIAGE CLUB

GAZETTE

Official Publication of The Horseless Carriage Club.

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BACK NUMBERS

Prices of back numbers of the *GAZETTE* to members

Volume 1, Number 1, (Mimeographed reprint)	$1.00 ea.	Volume 5, Numbers 1, 2, 3, and 4,	.50 ea.
Volume 1, Numbers 2 and 3,	.75 ea.	Volume 6, Numbers 1, 2, and 3,	.50 ea.
Volume 2, Numbers 1, 2, and 3,	.50 ea.	Volume 7, Numbers 1, 2, and 3,	.50 ea.
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Volume 4, Numbers 1, 2, and 3,	.50 ea.	Volume 9, Numbers 1, 2, 3, and 4	.75 ea.

Volume 10, Numbers 1, .75 ea.

Send orders for the Gazette to HERBERT ROYSTON
P. O. Box 504, West Los Angeles 25, California.

Articles appearing in The Horseless Carriage Club Gazette, contributed by members, express the individual opinions of the writers, and are not necessarily the opinions of the Editors. Permission is granted for reprinting articles appearing in this issue if credit is given to The Horseless Carriage Club Gazette.

TWO BIG EVENTS FOR APRIL

The Special Events Announcement, which was sent to all members the first week in March, has been received with great enthusiasm according to Secretary Harry B. Johnson. Entries for the two events, the Horseless Carriage Caravan and the Horseless Carriage Parade are arriving on Harry's desk in such numbers as to insure the success of these two interesting events.

If you did not receive the announcement or in case you have mislaid the entry blanks, Harry will be glad to forward them to you, post haste. Just address him (for this purpose) at 672 S. Lafayette Park Place, Suite 45, Los Angeles, 5, California.

There will be a number of valuable prizes given to winners of the various contests. A list of these prizes is not available at this time, but will be published later. Their values are estimated to total well over $2,500.00.

One interesting feature of the Parade competition is the search for the earliest California driver's license. It is not generally known that the first driver's permits were written in longhand by the late Hiram W. Johnson, then Governor of the State. The law was made effective on May 31st, 1913. But then, just as now, the politicos were slow in setting up machinery to service the law. As a consequence, when applications for permits from citizens began to arrive in Sacramento, they were passed from bureaucratic desk to desk until they finally reached the top—the desk of the Governor. Hastily the Honorable Mr. Johnson seized pen and parchment and wrote out the authorizations then and there. There may be one or two of these rare documents still in existence. They are gloriously replete with gala ribbons and the great golden Seal of the State. The Parade management wants to see one and they will give a handsome prize for the privilege. It may remain in the owner's possession, but he must be willing to have it photographed. If there are more than one, that one bearing the earliest date will receive the prize.

The next issue of the GAZETTE will be a special souvenir edition commemorating these two Spring events. There will be pictures galore and articles of interest concerning the Parade and Caravan.

Officers and members are looking forward to as near one hundred percent participation as possible in these two interesting outings. Don't fail to send in your entry blanks before April 1st. Remember! If you didn't get the announcement and blanks, or if you have mislaid them, Harry Johnson will send copies to you at once.

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ST. LOUIS REGIONAL GROUP ACQUIRES PERMANENT MEETING PLACE

The St. Louis Regional Group of the Horseless Carriage Club has been fortunate in acquiring a permanent hall in which to hold meetings. The location is the Academy of Science, 4642 Lindell Blvd., St. Louis, Mo. This has been made possible through the kindness of Mr. Richard C. Froeschner, Director and Chief Curator. Meetings will be held on the last Friday of each month. St. Louis members will provide an automobiliana display for the Academy, the material being subject to the return to owners at any time requested. The parking lot of the Academy is to be used for a Meet during the summer of 1948.

Wayne Bledsoe - Secretary
St. Louis Regional Group.

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COVER FOR THIS ISSUE

W. LATTA HAMMERSLEY, OF GERMANTOWN, PHILADELPHIA, PENNSYLVANIA, NOTICED AN ARTICLE IN A RECENT ISSUE OF THE *GAZETTE* AND MAILED US THIS PHOTO OF A NEW YORK SIGHT SEEING BUS OF ABOUT 1904. LADY AT THE FAR END OF THE THIRD SEAT BACK OF THE DRIVER IS MR. HAMMERSLEY'S GRANDMOTHER.

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The editor is indebted to Wayne Bledsoe, Secretary of the St. Louis Regional Group, for the excellent articles taken from the magazine COUNTRY LIFE IN AMERICA which have been appearing in recent issues of the GAZETTE. These articles give an insight to conditions as they actually existed back in the early days of the automobile and the pictures are very interesting. This coöperation on the part of Mr. Bledsoe is highly appreciated.

ANNUAL BUSINESS MEETING

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The annual business meeting of the Horseless Carriage Club was held Sunday afternoon, Feb. 29, 1948, at the Automobile Club of Southern California in Los Angeles.

President Lindley F. Bothwell called the meeting to order at 2:30 p.m.

Secretary Harry Johnson read the minutes of the last annual meeting of Feb. 16, 1947, and the minutes were approved as read.

Next, Treasurer Herbert Royston announced that there was $801.93 in the club treasury at the present time and that a complete treasurer's report will be published in the March GAZETTE.

President Bothwell announced the forthcoming Horseless Carriage Club tour, which will be for three days, tentatively set for April 9, 10, & 11, 1948. The tour will be sponsored by the South Figueroa Automobile Dealer's Ass'n, and will go via the following cities: Pomona, San Bernardino, Riverside, Corona, Santa Ana, Long Beach, and back to Los Angeles, with overnight stops at Riverside and Long Beach. The week following the tour there will be a parade for old cars on Figueroa St., sponsored by the same group, with many valuable prizes for participants. The vintage of cars in the parade and the tour must be prior to Jan. 1, 1915.

Ben Sharpsteen, of the tour committee, was called upon to add a few more comments in regard to the tour and parade. Ben explained to the members present that the South Figueroa group were going to a great deal of effort and considerable expense in planning and arranging the tour, and that it was a fine opportunity for the club. He further stated that the dealers were taking advertising in the GAZETTE which would be of benefit to the members as it will make possible a bigger and better club magazine. He urged that every member support the forthcoming tour and parade by getting his cars ready and taking an active part.

The president spoke of plans for meets for 1948, and invited the membership to his ranch for one meet if they so desired. He spoke of the difficulty of getting suitable places for meets and requested the members to look around with the idea of finding possible new sites for field meets.

Chairman O. J. Smith reported on the recommendations of the nominating committee and moved that the following names be placed on the ballot for the Board of Directors for the year 1948; Lindley F. Bothwell, Ben Sharpsteen, O. J. Smith, Harry B. Johnson, Herbert Royston, Dr. Geo. Shafer, W.E.Miller, Louis W. Combs, Steadman Smith, Tom Mathews, Art Twohy, Ray Nelson, Dr. A. S. Lewerenz, Floyd Clymer, Elliot Weiner, and Ralph DePalma. The motion was seconded and duly passed. The president asked if there were any nominations from the floor and there were none. On a motion by Jamison Handy, Jr., duly seconded and passed, the nominations were closed.

Ballots were passed by the president to those members certified by the secretary as being active members in good standing. The president appointed a committee of Meta Blackwell, Mrs. W. E. Miller, Mrs. O. J. Smith, and Mrs. F.A. Lydy to collect and count the ballots.

While we awaited the results of the election, Herbert Royston showed colored movies of John Cobb's fastest mile on Bonneville salt flats and the 1947 Glidden Tour held in New England. The "Fastest Mile" was available through the courtesy of General Petroleum Corp., and the motion pictures of the New England Glidden tour were through the kindness of member Sydney Strong, Atwater, Minnesota, who drove his 1909 Ford "T" from Atwater to Hartford, Connecticut, to take part in the tour. Floyd Clymer, who also attended the tour, delivered a running comment. Besides the pictures of the tour itself, with the attractive New England scenery in the background, were good colored glimpses of member Strong's adventures and scenes on his trip East, via Canada and Niagara Falls, and his return through woods turning color for Fall. At one stop while returning, it seems, a Ford dealer obligingly offered him overnight storage——which turned out to be in the show-room window in place of some newer cars there the evening before! Both pictures were interesting ——especially the New England tour picture——because it gave members a preview of the fun in store for the participants in the Horseless Carriage Club Tour.

Following the pictures, the results of the election for the Board of Directors for the year 1948 were announced by President Lindley Bothwell as follows: Lindley Bothwell, Ben Sharpsteen, O. J. Smith, Harry B. Johnson, Herbert Royston, Dr. Geo. Shafer, W. E. Miller, Louis Combs, Steadman Smith, Tom Mathews, Arthur Twohy, Ray Nelson, Dr. Lewerenz, Floyd Clymer, and Ralph DePalma.

The meeting was adjourned at 4:20 p.m. and Lindley Bothwell called a meeting of the new board immediately after to elect officers for the ensuing year.

At this special meeting officers for the year 1948 were elected as follows; President, Lindley F. Bothwell; First Vice President, Ben Sharpsteen; Chairman of the Board, Louis Combs; Second Vice President, Raymond Nelson; Secretary, Harry Johnson; Treasurer, Herbert Royston.

WAYNE BLEDSOE REPORTS

Last year the writer made a vacation trip to Los Angeles and had the pleasure of talking over the phone with several of the officers and directors of the parent club. I had the pleasure of visiting in the home of Mr. & Mrs. Jamison Handy where I was royally entertained for an evening and had the pleasure of having my first ride in an Electric Car. Mr. Herbert Royston took me out to his home, and some of those electronic gadgets he demonstrated to me while there still linger in my memory, for instance, the one where he turned a key and the gates to his yard opened and up went the garage door, and then exactly sixty seconds later the gates automatically closed, (Beware, Fuller Brush men!). After viewing the Mercer he was rebuilding, I was given a ride in his 1913 Marmon raceabout, which looks, performs, and runs like a new one.

This year I made a vacation trip to Huntington, Indiana, and on the way I saw a school house that had been converted into a garage and repair shop. On the outside were two tractor steam engines of early vintage, and a large Stanley Steam Bus, and of course had to stop and investigate. What I saw and learned was very interesting. The party's name who owned the shop was Mr. Stanley Allred of the Allred Garage & Machine Shop, R. 1, Warren, Indiana. I introduced myself and learned that he was a member of the HCC of Los Angeles, and that he spends a great deal of his time repairing antique cars. At the present time he was putting a 1910 White Steamer in shape for a fellow member in the East, and also rebuilding a Stanley coupe. You can imagine the thrill when he invited me for a ride in the Stanley Steamer, as this was the first time I ever rode in a steam car.

After the ride, Mr. Allred showed me several other steamers he had on hand to restore, one of which was a Milwaukee Steamer of early vintage. I got to see a Dyke Steam outfit, which he purchased from a party who told him that it was made by the A. L. Dyke Auto Parts and Supply Company in St. Louis in 1901. The motor was still crated in its original shipping box. He said the running gear was known as "Dyke's Flexible Reachless Running Gear," with 30"x 3" single tube tires. Some day he figures on assembling the machine, as many did in the early days. Any of you readers who have early issues of HORSELESS AGE can find ads on these Dyke Outfits; —running gears, axles, wheels, steering devices, radiators, gasoline engines, etc.

The officers of the St. Louis Regional Group hereby extend congratulations and good wishes for the future of the HCC of Los Angeles.

Wayne Bledsoe,
Sec.; Treas. of St. Louis
Regional Group, HCC.

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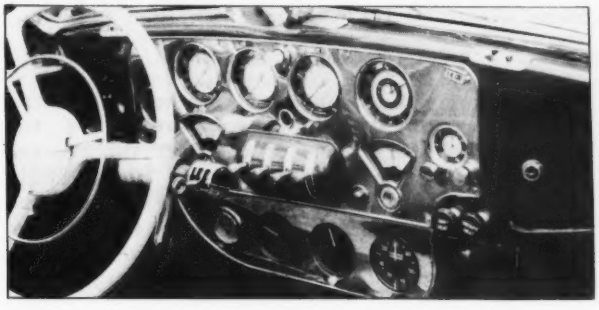
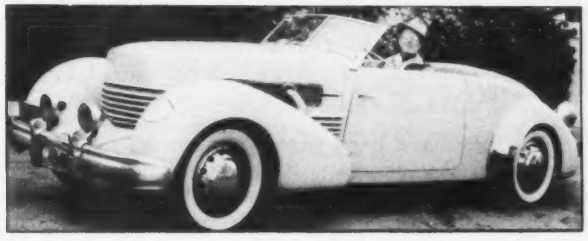


RAY NELSON'S 1937 CORD CONVERTIBLE

Equipped with Lycoming V-8
90 degree "blown" engine

This car was purchased new by the late Tom Mix, famous cowboy actor. It is the car in which Mix lost his life in 1940 near Florence, Arizona. He failed to make a detour and went straight ahead at high speed to where the new highway was not completed and dropped off the end. The car nosed over, throwing Mix clear, but he was hit in the back of the head by a metal bound trunk he was carrying in the back seat and his neck was broken.



VIEWS OF RAY NELSON AND HIS CORD

Ray Nelson acquired the car from the R.K.O. Studio in a wrecked condition and restored it to its present perfect condition. No mechanical work was necessary, only body work. It still retains on the accelerator pedal a leather pad on which the initials "TM" are burned. There are two gun holsters still in the car, one on the steering post and the other on the firewall.

On December 6, 1947, a stone column seven feet high and topped by a statue of a saddled but riderless horse was unveiled and now stands guard over the desert wash where Mix was killed. This memorial was unveiled before a crowd of tourists, old-time acquaintances of Mix, and others who had followed his screen adventures.

MEMBER STOCKWELL AUGMENTS HIS EMBLEM HOBBY WITH A NEW AND MOST UNUSUAL ONE

Member H. O. Stockwell, of Hutchinson, Kansas, having exhausted the state of early automobiliana, has now turned to a search for specimens from other planets.

Robt. Schrader and H. O. Stockwell are inspecting stony-iron meteorites (Pallasites) from the Brenham, Kiowa Co., Kansas fall. These meteorites fell many, many years before white settlers came to Kansas.

The first meteorites were found on the prairies in 1886. Later, larger ones were struck with sod breakers. Now they are located two feet below surface with scientific instruments, which are carried on an all wood wheel-barrow, taking strips 56 in. wide across the fields.

They have been picked up over a surface area of 2,000 acres. Fifty acres have been explored in nine days, recovering four specimens weighing 220, 357, 740, and approx. 120 pounds.

They have a high value for scientific study, museums, and for collectors.

This amount is comparable to that discovered in the entire world for the past several years.

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ANNOUNCEMENT

Any of our members planning to attend the Shrine Convention at Atlantic City, N. J., June 6th to 10th, 1948, should plan to stay in Atlantic City a few days longer and attend a tour of the Antique Automobile Club which will be in Atlantic City on June 12th and 13th. For further information write to Mr. Norris L. Carty, 140 W. Reading Av., Pleasantville, New Jersey.

from HORSELESS AGE, July, 1904

Plans are being perfected for an endurance contest between San Francisco and Los Angeles in the near future. The route selected comprises 506¼ miles of every possible variety of road and scenery. A large portion of the course is along the coast, and the grades necessary to overcome are as steep as thirty per cent. There will be three night stop stations along the course; one at Santa Barbara, another at San Luis Obispo, and a third at Salinas. The speed will be limited to an average of 15 miles an hour, and operators will be penalized a certain number of points for coming into the stations ahead of time. An observer will be in each car, and it will be his duty to take note of all infringements of the rules and of stops other than provided for in the regulations. The committee in charge of the contest will make an effort to encourage the participation of women as passengers, and to make it as much of an outing as possible. The San Francisco contestants will start first, and will go to Los Angeles in the estimated time of four days. They will be allowed one day of rest there, and then, in company with the Los Angeles party, will start on the return trip. The Angelenos will finish five days later than the others. The run will be under the immediate direction of the automobile clubs of the two cities. The date of the contest has not been determined, but it will probably be in the latter part of this month. L. P. Lowe, of San Francisco, recently went over the proposed route, and while in Los Angeles conferred with the officials of the Automobile Club there regarding the arrangements for the run.

TO OUR MEMBERS

We call your attention to the ad of the Nash-Kelvinator Corporation appearing on the back cover of this issue of the GAZETTE. We are indebted to our member, Mr. John A. Conde, Public Relations Manager for the Nash-Kelvinator Corp., for this fine co-operation. Needless to say, we can reciprocate by patronizing our advertizer in the purchase of an automobile or a refrigerator.

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A TRANSCONTINENTAL TOUR OF 1903

On the following page is a reprint from the HORSELESS AGE of part of a tour from San Francisco to New York in a Packard. We have reprinted only the portion of the trip as far as Colorado Springs. It originally appeared in serial form in a number of issues. We have tried to adjust it to make it appear continuous, but this was not always possible, so you will note extraneous material at times between installments.

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CAMPING IN THE DESERT.

ON A DESERT ROAD.

Across the Sierra Nevada.

In our issue of June 24 we made mention of the start from San Francisco of E. T. Fetch and M. C. Krarup in a Packard 12 horse power car, with the purpose of making a trip across the continent to New York. Following is a brief description of the first part of the trip, based upon information furnished us by the Packard Motor Car Company, the manufacturers of the car:

The start was made from the garage of Harold W. Larzalere, the Packard Company's Pacific Coast agent, 1814 Market street, at 5 o'clock p. m., on Saturday, June 20. When the Oakland ferry was reached the cyclometer registered 68 miles, which represented the amount of road testing the machine had received after leaving the assembling rooms. During the first evening the car was run from Oakland to Porta Costa, a distance of 38 miles, covered between 6 and 8 o'clock. No stops were made, except for frightened horses, but the bronzed bushed crank pin bearing was noticed to run rather hot. The cause, discovered the following morning, was that the point of the lubricating needle valve had been broken off and the packing of the valve had got in under the broken point. The needle valve was filed to its proper shape and the bearing worked itself into order during the second day's drive.

After ferrying across the strait, between Porta Costa and Benicia, at 9 o'clock a. m. travel was resumed toward Sacramento, the capital of California, which was reached after 8 o'clock in the evening, the cyclometer registering 215 miles, or 109 miles on that day. The car passed through Benicia, Cordelia, Suisun, Fairfield, Vacaville (where lunch was taken), Dixon, Davisville and Woodland, going in all 46 miles out of the planned route, partly to avoid a district adjacent to the Sacramento River, where floods in the spring had destroyed the bridges, and partly to recover a satchel which was lost out of the car between Vacaville and Dixon.

The crank pin bearing remained somewhat heated most of the day, but the loss of power was not sufficient to seriously reduce the speed on smooth roads or stall the car on sandy hills. Many of the roads had been treated with crude oil recently and afforded pleasant traveling, but some were extremely dusty.

The copper drip trough by which lubricating oil is fed to the groove in the connection rod got loose a few miles out of Fairfield, and was readjusted with copper wire in about fifteen minutes.

It was 9:10 o'clock when the car was started the next morning. When barely out of town a restive team had to be led by the machine. The next 6 miles, to Smith's Flat, a stretch not kept in repair by the State, was very rough and stony. At Smith's Flat an altitude of 2,710 feet had been reached, or a rise of 880 feet above Placerville. The car arrived at this place at 10 o'clock, having run a great part of the distance on the intermediate gear. For 8 miles farther it was up hill; the route led through a mining country, and numerous flumes were passed, some of which carried timber floats to the saw mills. When the State road was reached the surface became good, but the road was extremely narrow for passing teams comfortably.

After the 14th mile, past the Pacific House, reputed to be one of the most select road houses in the United States, and along the picturesque Bullion Bend to Riverton, the rise in altitude was slight, and there was no appreciable rise for another 12 miles. A stop for dinner was made at Riverton, when the motor was found to be still rather hot. It was then discovered that a special device, put on to enable the operator to regulate cylinder lubrication from the seat, turned the oil nearly off when it was supposed to allow a full flow. The only apparent result so far of the dearth of oil had been an unusual consumption of cooling water. The lubrication regulator was differently adjusted, and the result was at once noticeable in greater hill climbing power of the car.

At Riverton the only stone bridge built by the State of California was crossed, to the north side of the river, and from there the car continued 12 miles to Kyburz's Hotel and Sugar Loaf, rising all the while, until at 5:05 o'clock at Sugar Loaf an altitude of 4,100 feet was reached. Here the tourists put up for the night.

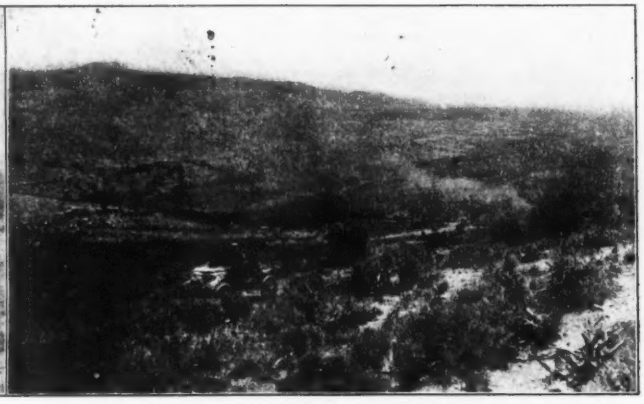
On Wednesday travel was resumed bright and early, at 5 o'clock, the thermometer showing 52° and the cyclometer 304 miles.

A MOUNTAIN FOREST.

DANGEROUS TURN AND STEEP DESCENT.

* The Packard was not the first car to make a transcontinental trip, but was preceeded by the Winton by a margin of a few weeks.

FENELON, NEV.



STEEP DOWN GRADE AT COLTON, UTAH.

Through Nevada.

The Packard Motor Car Company furnish the following details concerning the progress of their overland expedition:

The overland car arrived at Reno, Nev., at 9:35 o'clock Thursday morning, June 25, having made the run from Carson City in about two and a half hours, without difficulty of any kind or any incidents to be noted. The same afternoon an equally uneventful trip took the travelers to Wadsworth, 35 miles distant, where the difficulties were supposed to commence. The departure from this town was delayed a whole day by failure to receive gasoline freight bills, photographic films and other mail and express matter in time. When the start was finally made, on Saturday morning, many of the town people had gathered at the top of a steep sand hill, one of them provided with a team, rope and tackle that he expected would be called into requisition for drawing the automobile over the difficult spot, but provisions had been made by which this kind forethought on the part of outsiders had been rendered unnecessary.

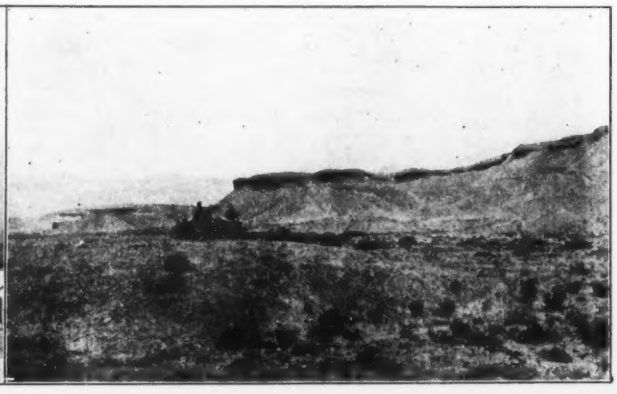
The car carried two strips of canvas each 20 feet long and about 6 feet wide, with the idea in view that, if traction failed in deep and dry sand the canvas could be spread over the ground and the car be driven over without sinking into it too deeply. This plan was carried out and it was with boundless surprise that the Wadsworth people saw the car rise slowly, but surely, over the steep grade and finally pass by them. They cheered vociferously, and even the man with the team took his disappointment in good part. For more than 10 miles thereafter the road lay through deep sand, and twice more recourse to the canvas was had in order to pull through. A little canvas awning had been built out over the front end of the car to shield the cooling coils from the direct rays of the sun, but even with this precaution it proved necessary to go even more slowly than the sand compelled, so as to avoid overheating.

About three hours and a half elapsed before the car had traversed the first 12 miles out of Wadsworth, and an idea may be formed of what this kind of sand means to the motor tourist when it is noted that on a 14 per cent. down grade it was necessary to drive on the low gear in order to reach the bottom. These trials over, the rest of the way to Lovelocks was found to afford comparatively easy driving. Late in the afternoon the first tire accident took place, due to a nail in a board lying in the road. Twenty minutes was required to pull out the injured section of the inner tube, put a patch in it and get it back into place.

Finally, Lovelocks was reached at 7:12 o'clock, the cyclometer registering 507 miles, and it was found by stick measure that the motor during the day, in spite of its hard work, had consumed only 6 gallons of gasoline. Before reaching Lovelocks the car had passed over a corner of the Humboldt River Sink, where this important watercourse disappears in the ground after serving to irrigate and fertilize innumerable ranches and farms in the valley extending for several hundred miles north and east. The course of the car lay henceforth for several days along the Humboldt River, with an occasional crossing of the mountain ranges which shoot into it at irregular intervals. In this valley Lovelocks is the first important town.

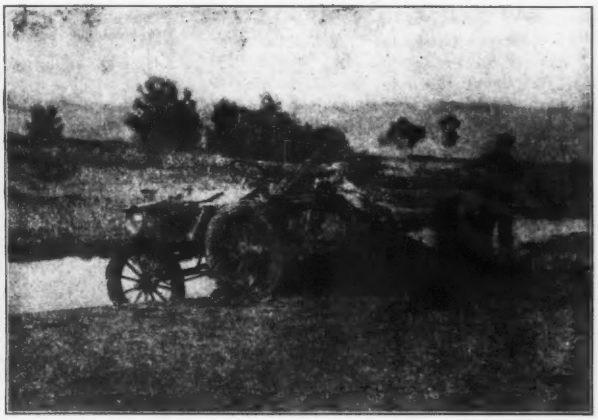
A third man had meanwhile been added to the party in the car, N. O. Allyn, who joined Messrs. Fetch and Krarup at Reno. It had been considered desirable that Mr. Allyn, who is an expert machinist, should travel by rail following the car within call by wire, so as not to be entirely dependent on local skill in case the car should be ditched or otherwise injured on those narrow roads where accidents might readily take place. So far, however, his services had never been required, and, the inactivity being irksome, he asked the privilege of going with the car to see the scenery. He continued with the party from the Reno to Colorado Springs, seated

DUN'S GLEN, NEV.



SAND HILLS OF SOUTHEASTERN UTAH.

CASTLE VALLEY, UTAH—37 PER CENT. GRADE.



NEAR THOMPSON, UTAH, THE DRIVERS SPUN IN THE SAND.

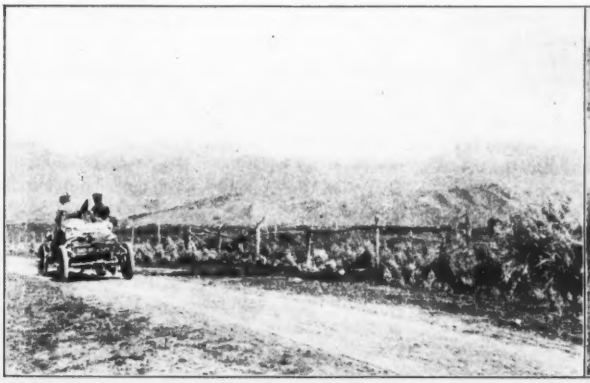
on the baggage when the car was in motion.

The following day, Sunday morning, the start was made at 6:12 o'clock. It was only a short ride until the desert proper was again reached, where sand and sage brush and alkali reign supreme. Close to the river, where no irrigation has yet been organized, the surface was deeply furrowed by ravines—here commonly called arroyas—with perpendicular walls, and to cross these frequently involved a sinuous course, part of which lay in the bottom of the ravine, until a place could be found where the ascent of the opposite brink could be made.

That the road, on the whole, however was not a difficult one is shown by the time made, for the car arrived at Rye Patch at 8:33, having then made over 25 miles. Here a supply of gasoline, forwarded for the purpose, was found on hand at the station, and 8 gallons was taken on board, the two remaining gallons of the supply being donated to the town. The vicinity of Rye Patch abounds in short hills with grades up to 23 per cent., most of them being the ups and downs of those ravines before mentioned. At 10:40 o'clock Humboldt House was reached. Here on one side the snowclad mountain range looms up and the stony ground hardly leaves room for even the sage brush to take root, while on the other side a few acres surrounding the Humboldt House show a luxurious vegetation and the green foliage of large trees, all the result of a little bit of irrigation. At this place a crowd of Indians, squaws and papooses, viewed the expedition curiously, waiting probably to be offered money for the privilege of photographing them. Occasionally one of these Indians consents to act as a guide over the mountain roads, but as a rule they pass their time either loitering in the shade or riding on top of freight trains, which by consent of the railroad companies they are permitted to do free of charge. Mills City, so called from an old mill located there, was reached at 11:42 o'clock; cyclometer, 555⅝. The thermometer at that time was 90° in the shade, the barometer 25.55 inches, indicating an altitude of about 4,400 feet.

It was decided to pass over the mountain visible from the town rather than to follow the river bottom land, where the sand was understood to be so abundantly deep, and the results justified the decision. The mountain pass route through Dun Glenn, a mining community, where a few old men still dig away for treasure, while the more enterprising young men have left for better fields, had many steep grades, but afforded a good road surface most of the way and interesting scenery. The rise in elevation at the summit, compared to Mills City, was found to be about 1,500 feet. Then began the descent at 4:25 p. m., and this part of the trip was weird and picturesque. Until 5 o'clock the roads continued steep and winding, with many abrupt turns and curves.

At the bottom of this wild declivity, extending for probably 8 miles, the land spread in a conical formation of gentle grade to the west, north and east, and, descending this grade the overland car finally reached the sand bottom at 5:20 o'clock, still several miles from Winnemucca. Some hard pulling through this sand now took place, but the delightful discovery was soon made that where the sand was deepest and most impassable the enterprising citizens of Winnemucca had sent out their squad of road improvers, who had cut down the sage brush on both sides of the track and spread it over the sand, turning it into what is locally called a "brushed road." The effect of this improvement was far superior to corduroying, as the soft sage brush wood soon splinters into shreds and makes a soft and pliable roadbed. For nearly 4 miles the roads had been so treated, and for this reason the last stretch of the day's trip, which under other circumstances would have required a couple of hours of hard pulling, was finished at 6:30 p. m., the cyclometer showing 585 and the ba-



UTAH LANDSCAPE, ALONG THE EDGE OF THE UINTA INDIAN RESERVATION.

MET BY A DELEGATION FROM DENVER.

rometer telling the story that the level of Winnemucca and that of Mills City were exactly the same.

The next morning, Monday, June 29, rain poured down, and, as it was understood that the roads to Golconda lay largely through alkali deposits and marly bottom lands, departure was deferred until afternoon, so as not to court slippery mud before it proved absolutely necessary.

The machine was thoroughly inspected and oiled, and it was discovered that the spark plug for the first time required cleaning and also that the chain had stretched somewhat—by wear in the links, of course—and needed tightening. After dinner the distance to Golconda was made in an hour and twenty minutes, arriving there at 2:40 o'clock; but though it had ceased raining, the car was by this time in a bespattered condition that set the Golconda population to wondering what kind of traveling this was. Like Winnemucca, Golconda had never seen an automobile before. Continuing after a short stop for directions, the car was steered over the nearest mountain range toward Battle Mountain, and reached the summit an hour after, with the cooling water nearly boiling, for the day was sultry and calm, and the climb of 4½ miles was sufficiently steep to make a total rise of 700 feet. The descent on the other side was an unmixed delight. For 6 miles fine coasting was enjoyed, over roads to all intents and purposes equal to gravel walks. Then came the bottom flat, covering some 5 miles, where the alkali shone like white enamel, out of which little bushes of sage protruded at intervals of from 20 to 30 feet. Then followed a plain level wagon rut trail, here and there obstructed by loose stones, but with nothing to hinder the timely arrival at Battle Mountain at 6:17 o'clock, the cyclometer showing the distance traveled just 60 miles during the half day.

N. A. A. M.

The technical committee of the National Association of Automobile Manufacturers will meet on August 4 to plan some experiments with tire valves. It is understood that a theory of Charles E. Duryea, concerning the usual resistance of these valves to the initial stroke of a pump, is to be tested.

A meeting of the executive committee will be held on August 5, at which general business and matters connected with the fall reliability run will be taken up. Harry Unwin, the association's secretary, reached Cleveland July 27, ending a trip from New York in which only two full days of fair weather were experienced.

The automobile races at Deauville, France, have been abandoned. The "terrasse" is too short for the power and speed now attained, and an attempt to get permission to race on the road between Deauville and Villers failed.

MINOR MENTION

Automobile owners of Milwaukee, Wis., are planning the suppression of reckless chauffeurs.

An automobile storage and repair station is soon to be established in Youngstown, Ohio.

Business men at New Richmond, Ind., are talking of establishing an automobile factory there.

The Kentucky Automobile Company has opened automobile salesrooms in Louisville, Ky.

The question of using automobiles for collecting the mail has lately been revived in Chicago.

L. J. Sackett, lately with the Locomobile Company of America, has gone with the Searchmont Company as salesman.

A. H. L. Messmer, of Indianapolis, Ind., has invented a basketlike refrigerator, to be carried in automobiles and carriages.

A trolley company of Bangor, Me., is planning to use electric omnibuses to transfer across a bridge where its tracks are not permitted.

Charles E. Miller, the New York automobile supply dealer, will open a branch store at 127 West Thirty-sixth street, New York city, about August 1.

Charles A. Wardle, recently with the Locomobile Company of America, has gone with the Ford Motor Company, of Detroit, Mich., as sales agent.

William A. Brown, of Elwood, N. J., has applied to the Department of State for an automobile license for his traction engine, making his affidavit in regular form.

Appraiser Whitehead, of the Port of New York, has been sustained by his department in the valuation of $12,465 placed upon a recently imported 60 horse power Mercedes.

John Godfrey, who recently appropriated an automobile from the barn of George D. Widener, in Philadelphia, has been released, his victims having agreed not to prosecute.

The Continental Caoutchouc Company inform us that the Mercedes cars which won in several events on the Empire City race track last Saturday were fitted with Continental tires.

Thomas H. Besse and his sister-in-law, Mrs. Salles, of New Orleans, La., who were injured by an overturning runabout at Providence, R. I., are both said to be in a very serious condition.

A warrant is said to be out for the arrest of Frank M. Baker, secretary of the Foster Automobile Company, of Rochester, N. Y. Detectives with warrants are seeking Park Densmore, president and treasurer of the concern.

The Pope Motor Car Company have completed at their Hartford factory the first model of their single cylinder gasoline runabouts, with planetary transmission and chain drive, which they intend to place on the market next season.

Through Nevada.

(Concluded.)

Following is another chapter of the transcontinental tour in a Packard touring car:

On the way from Golconda to Battle Mountain a new source of annoyance had cropped out which was destined to haunt the tourists for many days. The soil was a little richer, it seemed, than farther back, for the sagebrush grew rank on the ridge between the wagon ruts, and the ridge itself was firmer and higher than in the more sandy regions which lay behind. The soil washed more easily, too, so that the road was crossed by numerous little runs rather than by a few large ones. Frequently the ridge reached up to the differential gear casing, and it became necessary to drive with much caution and sharp lookout for the high places, lest the car should get hung up on the gear casing with the drivers lifted from the ground.

This evil grew more pronounced in the course of Tuesday, June 30, when the start from Battle Mountain for Elko was made at 7:50 o'clock in the morning. The cyclometer showed 645 miles. One trail followed Humboldt River closely, but it was a dry weather track, and at this time was slippery from the recent rain, and the full river was overflowing in places. Once, forcing the machine out of a rut which was getting uncomfortable, the car for the first time slewed completely around right among the sagebrush, which here had a scattered growth. There was nothing serious in the little waltzing, as the ground was flat all around, but it warned the driver to use only the hill climbing gear in getting out of ruts and in all difficult places where alkali and a little moisture rendered the going unsafe.

As a matter of record it should perhaps be put down that before the start the gear box had been cleaned of its old lubricant with the little detrition from the new gears which had accumulated since the beginning of the trip, nine days before. The clutch also was tightened.

Leaving the bottom land trail, a low slope close by was struck where another trail wound its way among a profusion of large and small sharp stones which had been washed down from time to time from a rocky ledge above. To the right, below, magpies and water birds were swarming in and out of the low willow thicket along the narrow strip of river marsh. The scene was not altogether desert-like, yet so far as the eye could reach in the distance only sagebrush was visible; a large plain stone 300 to 400 square miles in extent, bounded by two low mountain ranges, and where the river and its little tributaries cut their beds into the ground could only be told within a stone's throw from its banks.

One of these tributaries is Rock Creek, which was to be forded, and the tourists had been told in Battle Mountain that it would be out of the question to attempt crossing it at the usual ford where the water was now as high as the banks. The

search for the upper ford, however, was interrupted by a tire leak. Investigation showed that the patch placed on the inner tube of the left front tire before Lovelocks had been applied with more hurry than skill, for it was the old puncture that leaked. The inner tube was replaced, not because it was necessary to do so, but because it was more reassuring, and a long day was ahead. In the further progress the differential case, the rear axle brace rod, and even the muffler grazed the stones in the road several times. Dodging one stone, sometimes another was hit, for Mr. Fetch's eye had not yet grown so keen in measuring this kind of obstructions as it became in the course of the following few days through Nevada and Utah.

Here, too, was found the first use for the shovel when the car was steered into ruts from which there was no exit, except by backing up a quarter of a mile. In front the brush grew so stout on the ridge between them that the machine could not be dragged through. But the shovel saved the situation. Presently a coyote made his appearance, contemplating the tourists from a distance of about 100 yards with great composure. Bullets from two revolvers missed the mark, but made him scamper.

At 11 o'clock the Rock Creek upper ford was reached, the cyclometer showing 675½ miles. It did not look very bad. True, the descent was at an angle of about 45 degrees, but in the middle there was a little bank of shale and stones, and the opposite shore was flat and sandy. The front wheels were cautiously let down in the water under brake action, and the depth was found less than 2 feet. But when power was switched on the car refused to move. The angle was so steep that all power was wasted against the bottom of the creek. A little pushing on the front wheels helped over this difficulty, and the opposite shore had been nearly reached when the front wheels struck a stone or shale ledge in the creek bottom, perhaps 8 or 10 inches high. It was necessary to back up and steer a new course; and this could not be accomplished without a man at each front wheel to help. Wet feet was the natural result, as Mr. Fetch had on the only rubber boots in the outfit, and he guided the car from the side, walking in the water.

This was one occasion when the presence of a third man seemed convenient, and yet the experience throughout would rather bear out the contention that two may get through difficulties as easily as three, or a little more easily, the main point being to adapt the means for avoiding trouble to the circumstances.

The distance to White House from the ford was only about 6 to 8 miles, but through the inexperience of the pilot it became 20, most of it over a very fair level wagon track running straight as an arrow through sagebrush from north to south, after having first followed the northern range of hills too far. The flat which was thus crossed was found to belong to the Dumphy horse and cattle ranche, which includes an area of 187,000 acres. The ranch buildings were reached at 1:25 o'clock, and there dinner was served by one of the Chinese cooks who do this work in hotels and on ranches all over this portion of Nevada. To their national traditions is due the fact that eating hours are strictly observed. Arriving after the regular meal time one can get nothing to eat until the bell rings again.

From the Dumphy estate at White House to Carlin the road leads between two portions of one mountain cut in twain to the bottom. At least this is the way it appears for part of the distance, where a small creek bores its way through a narrow, almost level canyon, which connects comparatively flat heather on both sides of the range. Before entering this pretty diversion in landscape the car was stalled, however, on one of the road ridges. This was at 2:40 o'clock, shortly after leaving

At Glenwood Springs, in Front of Colorado House.

On the Road to Glenwood—Under an Old Flume.

the ranch. The cause was the usual one: the ridge was higher than it looked, caught the rear axle brace under the differential gear case and turned it around the axle until the upper crosspiece of the case frame bore down upon the sprocket chain. In twenty minutes it was all twisted back to its place and the set screws tightened, but the chain had been weakened by the irregular strain, and at 4:15 o'clock it came nearly apart on another similar ridge, and four links had to be replaced with new ones. This operation, and again straightening the rear brace, required forty-five minutes, being finished at 5 o'clock. The cyclometer showed 713. While this was going on the car stood on the sharp incline where the incident occurred, nose upward, and when ready to start again the carburetor had been flooded by reason of the increased head of gasoline fed by gravity from the tank in the front boot. It had been neglected to turn the gasoline off when the repair was begun. Most of the little temporary troubles came about through just such inadvertences, but rarely caused delays of more than a few minutes.

Carlin, a pretty little town on the railroad—all towns in Nevada are on railroads—was entered at 7:30 o'clock, and it seemed evident that Elko, 28 miles farther, could not be reached before dark. The first 14 miles was through a canyon rising to an elevation about 500 or 600 feet above the surrounding country. The rest was said to be smooth, good road downhill to Elko and parallel with the railroad. The tourists took the chance of getting through the hills during daylight and making the last 14 miles by lamps, and in this they barely succeeded. The last two miles of the mountain seemed a trifle uncanny, being rough and steep and appearing more so in the darkness, which was fast settling around them. They almost overlooked a little stack of cut-off sagebrush which had been placed at one side of the forking trail, and which Carlin people had told them meant that here they had better turn off onto a hogback slope, which would be safer for a night descent into the valley than the lower pass. The hogback was found pitched just about right for gentle coasting, though its width was hardly more than 15 yards and sufficiently irregular in outline and surface to call for sharp attention to the steering. If the lamps had been lighted in this place the shadows would probably have been more confusing than the light could have been helpful. Finally the good road was reached, however, and here the headlight, when lighted, showed a plain course, and after a little hesitation to find out whether it was all that it promised the third speed was thrown in and Elko reached at 9 o'clock, just 1½ hours after leaving Carlin. The cyclometer indicated 753 miles, the barometer 24.80, or an elevation of 5,050 feet.

ELKO TO WELLS.

Frequent driving over virgin trackless ground through the sagebrush, to avoid the deep ruts, had filled every accessible interstice in the car's mechanism with ground up twigs. The gear lever quadrant was choked with coarse pulp, and the lever for the side brake and clutch was impeded by it. Longer twigs were wedged in wherever they could find lodgment. The underside of the muffler was polished like a shining kettle; the paint rubbed off the underside of axle and braces, and the wooden handle of the shovel, strapped underneath, was furrowed from the whipping it had received. Later on, in Utah, it was actually whipped into shreds, and it became necessary to buy a new one.

For this reason a cleaning out process preceded the departure from Elko on the following day, Wednesday, July 1, while the tourists were waiting for the post office and express office to open their doors.

The tires were still in good condition, though beginning to show the canvas on the inner sides where the rubber was being gradually ground off. The treads and the

"Tom" Fetch in "Old Pacific."

In the Heart of the Grand Canon.

outsides of the tires remained intact, and this was due to the fact that almost the entire wagon traffic in the States west of Colorado, small as it is, is with vehicles of 5 feet wheel gauge, while the car is of standard gauge, or 4 feet 8½ inches. With one tire squarely in one of the ruts, the other tire would drag against the inner edge of the other rut, and whenever that edge consisted of hard baked alkali marl—turned up in the first place where the soil was wet—the grinding action was rapid and severe. And the car would naturally wobble from one rut to the other according to the slope of the surface, so that both front tires were ground about evenly. The rear tires, being more rigid in relation to the body and weight of the car, escaped some of this action. Eleven miles out of Elko the rear axle brace was dislocated again while going down a steep and sandy hill, but by this time a quick method of remedying this recurring inconvenience had been discovered. It consisted simply in jacking under the front arm of the brace until the weight of the car, bearing down on the rear axle, turned the brace back to its correct position.

Eighty-four degrees in the shade and 115 in the sun (mercury thermometer) did not seem excessively hot, but with the wind from behind—what little there was—and a series of sand hills to overcome, the cooling water came to a boiling point two or three times, but in these as in other cases previously referred to it should be remembered that the altitude lowered the boiling point of water considerably while reducing the capacity of the atmosphere for carrying away the thermal units.

There was a certain grim variety in the landscape. The sand hills had the snow clad Ruby Range for background. After the laborious climbing often followed a long coasting with no other brakes required than the resistance of the soil. Then again spots were found where desolation reigned supreme; nothing visible within the confines of the hills but a dreary expanse of stony ground with a scant vegetation of sage, greasewood and several varieties of other mean plants whose names we never learned. Presently a shallow slough was encountered, 18 miles out of Elko, where little pools of stagnant water oozed out of the white, barren ground, impotent to fertilize it here where the alkali was combined with gravel rather than with clay.

Nineteen miles more of similar country and Deeth railway station was reached, which is said to be the coldest place in Nevada.

When the distance was to be read the cyclometer was found broken. Estimating the last few miles since the previous notation, it should have registered 790 miles at Deeth.

Nothing at Deeth indicated that a fertile valley was near, yet a few miles by a road winding around low hills brought the large and prosperous Star Valley settlement into full view. One of the first buildings along the road was a meeting hall for the order of Good Templars, and it seemed that the whole colony belonged to this order; in fact, that the Star Valley had been taken under cultivation as a matter of lodge enterprise. The homely habits of aquæ potores (water drinkers) explained why Deeth received so little benefit from their proximity, but in the settlement itself thrift was certainly visible everywhere, whether it was mainly due to the well organized irrigation of the fields or to the abstention from irrigating the inner man with stronger liquor. Well fed horses and cattle, large fields of alfalfa and smaller patches of grain greeted the eye in every direction. A special feature was the houses built of discarded railway ties with reddish marks from rails and spikes, bearing witness to the economy practiced in the early beginnings. The ties, it was said, had been sold by the railway company for 5 cents apiece. The road led up and around the side of the mountain from which the melted snow serving for irrigation ran down in numerous rivulets crossing the road every hundred feet to be intercepted in a main ditch skirting the road on the left. Most of the streams had stony beds, but a few were soft, and in one of these the car was unexpectedly mixed so deeply that it required a half hour of hard work with the jack, the shovel and some fence posts to get under way again. The soft spot in this case extended over a distance of about 2 rods, and had been made passable for light wagons by dumping straw and malodorous refuse, but the machine, weighing with its load over 3,000 pounds, cut through this "improvement." Most of the 23 miles from Deeth to Wells the road circled around the mountain referred to, with the Star Valley circling with it on the left, and the rivulets continued to cross the path. The elevation of the road was found to be 5,625 feet at 3 o'clock. At 5 o'clock we arrived at Wells, so called because in the vicinity of this town are the wells or springs from which Humboldt River takes its beginning.

The Packard Transcontinental Tour.

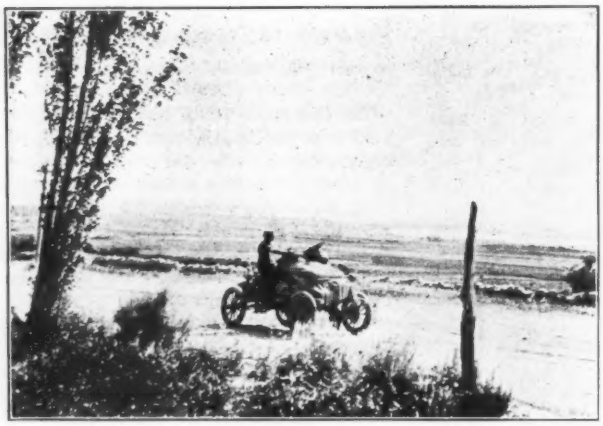
(Communicated by the Packard Motor Car Company.)

The start from Wells, Nev., was made at 7:40 a. m. on July 2, with the cyclometer registering 745 miles and the thermometer showing 56°, a drop of 40° since the previous day. The power of the car seemed affected. The oil (red gas engine cylinder oil) was cold and stiff and did not feed properly. The ignition cam was also found to have been worn slow, but was readily adjusted. The oil soon warmed up. At Wells the tourists learned of a Haynes-Apperson surrey which had been shipped to Toana, about 40 miles east, by mistake on May 21, and which it was now intended to use for a stage between Wells and Ely, a mining camp, 150 miles south. A successful trial trip had been made on June 30 with G. W. Ridenour, Kokomo, as driver.

When adjusting the ignition cam the side panel of the car was left behind on the ground. Fetch ran back alone with the car, and, driving at the highest possible speed, he made 13½ miles in 1h. 10m.—not so bad in sagebrush. Pinion pine and scrub cedar were getting common and grew considerably higher than the sagebrush. From Wells on it was a desert, in so far as absence of water was concerned. The trail to Toana was hard to find, because the Southern Pacific Railroad was rebuilding its bed through this section, making large fills and cuts to shorten distance and moderate grade cuts. Old and new roadbeds were in several instances over a mile apart, and trails had been cut up and destroyed by the work; misleading grading camp trails had been formed, and for the time being it seemed impossible to make headway without crossing the railway tracks innumerable times and scaling a series of forbidding hills.

At a section house near Fenelon the tourists were confronted with a hill that stunned them. Two tracks led to the top, one straight and the other with a sharp bend a third of the way up, but the upper portion of both looked like vertical walls from a little distance. To go up on the

On Crest of Hill at Fenelon, After Climbing a 40 Per Cent Grade.



TWO VIEWS OF GREAT SALT LAKE FROM PROMONTORY RANGE, NEAR KELTON, UTAH.

lowest gear steadily was out of the question. It was a case of jumping the car by flywheel momentum, stopping on the brakes when the momentum gave out, and jumping again. However, the attempt had to be made. Two of the occupants secured stones to place behind the drivers at critical moments, and proceeded to help by pushing. The car was jumped probably 5 or 6 feet. Quick brake action and equally quick stone action had the desired effect, though it trembled in the balance. The operation was repeated many times, the walking passengers panting for breath and all excited, but the car submitted to the strain and responded to the emergency. After a short rest the performance commenced again. The grade became a trifle easier. A few more jumps and the top was reached. The clinometer was taken out of its case, and walking back to the bottom—backward as going down a hatchway—the grade was measured at various points, placing the clinometer on the side panel of the car, which was removed for this purpose. The grade varied from 19 to 25 degrees. The average seemed to be 22½ degrees, or about 40 per cent. The 25 degrees, or 44½ per cent., was reached only for a rod or so.

Toano was reached at 1:30 o'clock, the cyclometer showing 798 miles and the elevation being 5,970 feet. On the 27 miles between Toano and Tacoma no serious difficulties were encountered, but an abundance of weird views. Ten miles out of Toano, Pilot Knob, one of the highest peaks in the State of Utah, and known to every forty-niner, hove in sight, being visible above a lower range some 10 or 12 miles to the east, but still in Nevada. Long stretches of barren, stony ground, and thousands of acres of whitelands between the trail and the low range produced the usual effect of hopeless desolation, varied somewhat in this case by the bright colorings, mostly mottled red, of the mountain sides, from which promontories shot out at intervals. Toward Tacoma again more sand and more sagebrush. Near the town the ax—usually strapped on top of the reserve gasoline tank in rear—was first made use of. It served to clear the "road" of some uncommonly stout sagebrush stumps which refused to yield to the usual method of mowing them down by the weight of the car. The arrival at Tacoma was recorded as at 4:25 p. m.; cyclometer, 825. Fifteen gallons of gasoline were taken on board here, the supply having dwindled to 2 gallons, which was about as low as it ever was allowed to run west of Denver.

The start from Tacoma was made at 5:45 a. m. July 3. It was attempted to cut the way short and avoid the disagreeable travel near railway grading camps, where heaps of tin cans, boards with nails in, and all kinds of offal increased the chances of tire puncture. An impassable ravine, however, made it necessary to turn back, and the trail was crossed about 15 miles from the start. Going back toward Lucin station, only 11 miles from Tacoma, some bad sand had to be crossed. It was so deep and loose that the car occasionally sank down till the differential case dragged. With full power the car could have pushed the sand aside, brush and all, but out of three revolutions of the drivers probably only one was good for traction, while the other two served to pack the sand a little so the tires could take hold. Here, as well as near Wadsworth and Winnemucca, this slipping of the drivers in the sand doubtless raised the cyclometer record somewhat above the actual mileage. Including the detour, the record advanced from 825 to 852 miles before Lucin was reached. Two miles west of this insignificant station the railroad branches off southeasternly to cross Great Salt Lake and save the great curve by way of Promontory and Enterprise. Drinking water is scarce at Lucin, but by depositing a half dollar piece on a shelf in a nearby shanty it was found possible to produce a different beverage gratis at some distance from the place of deposit. The inference was that the railroad favored restrictions on the sale of spirituous liquors near its camps.

Anyone who may try in future to drive an automobile from Lucin to Terrace (cyclometer, 875) will remember the trip afterward. Gullies cross the trail about every 100 feet, into which the front wheels must be lowered cautiously, and then there is danger of driving the headlight against the opposite bank. Then the rear wheels must be nursed down into the ditch, and if the latter is not very broad that means that the front end of the car must simultaneously be nursed up on the other side. Then, when the rear wheels are safely down, the whole car must be shot up by flywheel momentum, and if the two banks don't happen to be parallel this means a very energetic use of the steering gear, too, so as to have both front wheels in contact with the ground, and not one of them lifted into the air while the other is twisted around scraping against the point of the boot. This series of operations, repeated about fifty times per mile for 23 miles, leaves an indelible impression on the memory, or sore spots on the driver's hands, and a very lively realization of the fact that a car to go across such country must have highly flexible running gear and several other qualities.

With the car standing on its nose in one of these gullies the gasoline ran out of the float chamber of the carburetor and back to the tank in the boot. To start, it was necessary to switch in the little 1 gallon emergency tank provided for just such cases, close to the carburetor in the rear. The incident suggested the advisability of having a half pint trap for gasoline near the carburetor in all cars.

Terrace was reached at 11:30 a. m.; elevation, 4,548 feet; distance by rail to San Francisco, 709 miles. The cyclometer distance was 875 miles. Distance to Ogden by rail, 124 miles. The road to Kelton was mostly level, over white alkali land, and Kelton was reached at 1:30 p. m.; cyclometer, 905⅛; temperature, 76½; elevation, 4,224. The driving was easy and the white Salt Lake marshes were constantly in view to Lake Station, where a spur of the Promontory Range must be scaled. The railroad makes a wide detour around it, but leaves no room for a

wagon track. Many railroad men assembled to see the car climb the grade, which looked very much like the 40 per cent. hill at Fenelon. It was perhaps not quite so steep for all its length, but, on the other hand, the footing was impaired by loose stones, which once dislodged rolled all the way to the bottom. The method adopted to scale this hill was the same as at Fenelon, and with the same gratifying result. The mountain has three crests, and the first summit was reached from 5:30 o'clock till 6:01, and it was just 8 o'clock when the car arrived at the historical railway village known as Promontory, where the engineers of the Southern Pacific, building east, and those of the Union Pacific, building west, met on May 10, 1869, completing the first trans-continental railway. Cyclometer at Promontory, 939; gasoline consumed July 3, about 8 gallons; lubricating oil consumed since leaving San Francisco, 5 gallons.

The Packard Transcontinental Tour.

(Continued.)

(Communicated by the Packard Motor Car Company.)

On July 2 and 3 the strains on the machine had been very heavy at times; the flywheel shields had been polished, the battery box scraped and scoured, and the shovel handle badly shredded—all from driving through and over the brush—but the operation of the car had not been affected, except that at 882 miles (cyclometer) the differential box inadvertently slid on to a ridge, causing the chain to stretch and run hard. At 888¼ miles the clutch was oiled.

On July 4 the car was run from Promontory over Corinne, Brigham and Ogden to the capital of Utah, the start being made at 7:12 a. m. and Salt Lake City reached at 3:45 p. m. The distance was supposed to be 90 miles, but the cyclometer advanced from 940 at Promontory to 1,046 at the garage in Salt Lake City. This day's run was rather uneventful and driving easy, though it was plain that the car had suffered from the ordeals of the previous days. The front spring, inverted elliptic, had sagged after the abuse to which it had been subjected in the gullies and "twisters" (a twister is a gully with converging banks, or crossing the trail at an acute angle); the lug holding the rear axle brace bar on the right was broken; the pitch of the chain was irregular—yet everything operated sufficiently well to cover 100 miles in eight and a half hours.

From Promontory the road soon led down close to the level of the white, barren marshes adjacent to Salt Lake, which are getting larger in area each year, while the lake grows constantly smaller, being deprived more and more of its afflux of fresh water from Bear Creek and other streams, because this water is used for irrigation in evergrowing measure as the settlement of Jordan Valley and the contiguous sections increase in population.

For persons emerging from desert land the first sight of Corinne was refreshing. Trees, especially the splendid poplars which characterize Mormon districts, grow everywhere. Streets are broad and well kept. Main ditches and laterals filled with water from Bear Creek extend in all directions, and the river itself flows full to the brim through the outskirts of the town, where a model road almost teemed with carriages and picnic wagons decorated with flags and full of festive clad people bent upon celebrating the Day of Independence.

In Brigham, ensconced at the foot of the Wasatch Range, testimony to Mormon thrift and agricultural enterprise multiplied. Here the first motor car (an Oldsmobile) was seen since leaving Sacramento. Nods of fellowship were exchanged in passing.

The road to Ogden followed the foot of the mountain—high, rugged and streaked with snow, only a narrow strip of tilled and closely built up area intervening, while the highly cultivated valley extended for a considerable but irregular distance to the right, emerging by a gently undulating slope into the lake or marshes. Arrival at Ogden, 12:15 p. m.

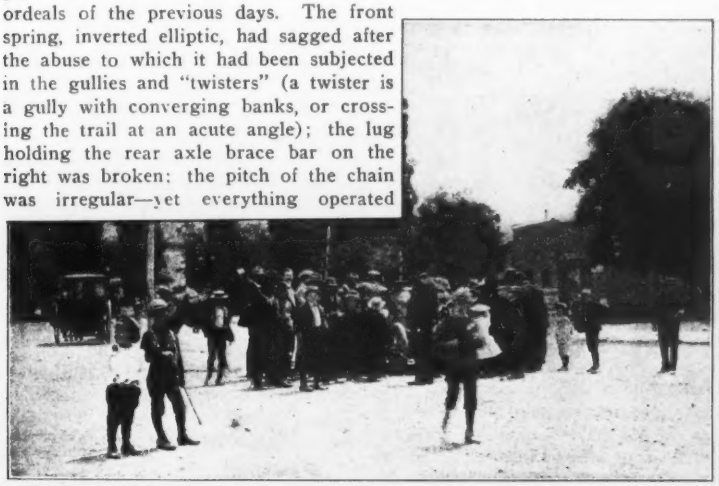
After the start from Ogden, at 1 p. m., for Salt Lake City, 36 miles, the course led along a broad, fairly well kept road with few grades, the valley all the time to the right, and seemingly prosperous villages nestling under the mountains.

Shortly after arrival in Salt Lake City the car was attached by a sheriff as security for a claim for damages against the Packard Motor Car Company, of Warren, Ohio, filed by an individual who had desired to go with the car across the continent in the capacity of a pathfinder.

On July 4 and Sunday, July 5, nothing could be done to liberate the car, which remained in the sheriff's care. The necessary formalities extended to the afternoon on Monday, July 6, and then there were gasoline arrangements to be looked after, so the start was not made until Tuesday morning. Meantime the rear brace lug had been replaced, by the assistance of a blacksmith, and all the machinery had been inspected, cleaned and oiled, with the exception of the motor proper, which was not touched.

The start from Salt Lake City was made at 7:20 a. m. Civilized roads led through Murray, Lehl and American Forks to Provo—the "Garden City of Utah"—which was reached at 10:45 a. m., the cyclometer showing 1,092, or 46 miles from the start. Large smelting and refining works were seen at Murray and Lehl, and at the latter place the road had been improved with cinders. There is some rough country at the boundary line between Salt Lake and Utah counties, where a good retrospective view of the Lake Valley, which here narrows down close to Jordan River, is obtained. Dinner and 3 gallons of gasoline were obtained at Provo, and the journey continued at 12:35. Owing to misdirection, a wrong street was followed out of the town and an unexpectedly bad stretch of heavy yellow clay encountered, about 300 yards along, where it was all the car could do to pull through, though the grade was not over 5 per cent.

The road followed led through the interesting village of Spanish Forks, 4 miles out of the best way, and, moreover, caused the car to get mired near an overflowing irrigation ditch when afterward cutting



THE MAIN STREET, BRIGHAM.

SCHOOL HOUSE IN STAR VALLEY.

CORINNE AND BEAR CREEK.

SPANISH FORK CANON.

SMELTER AT MURRAY.

across to the right road. This happened at 2:15 p. m., near the entrance to Spanish Fork Canyon. Willow, sagebrush and scrub oak were cut down to get traction out of the morass, and the chains carried for this purpose were wrapped around the tires. By this means the car finally extricated itself from the first trouble of this kind at 2:45 o'clock, and a few moments after the canyon was entered, where "a good road for slow driving" and pleasing scenery were found.

At Castello Springs in this canyon elaborate but decaying buildings and a large dancing estrade bore witness to an unsuccessful attempt to create a pleasure and health resort. The hot water from the springs was of the variety said to be health giving because it tastes bad. Up to the Mill Ford the canyon was narrow, and the road up and down with grades exceeding 12 per cent. Cliffs of red sandstone or similar rock hedged the narrow passage.

Farther on beyond Thistle Junction the canyon broadens into a valley some 100 to 500 yards wide, with many signs of husbandry and cattle raising, and the rock cliffs alternate with banks of white clay are scattered growths of timbers. At one point in this valley a big stone concealed in an innocent looking bush was bumped against, which turned the rear axle with springs and braces.

Going in and out of Thistle Junction, where the D. & R. G. railway sends out a branch road through a canyon extending southward, the passage is narrow and the grades are steep for a while, and from one point the little railway village looks very picturesque, hemmed in, as it seems to be, on all sides by mountains of considerable height, and occupying a little triangular space at their base with absolutely no room for expansion. Tucker was reached at 7:20 p. m.; cyclometer, 1,141.

According to the British Consul General automobiles are increasing rapidly at St. Petersburg. German, French and Belgian makers supply nearly the whole demand.

A Portunate Escape.

An illustration of the dangers of one car attempting to rush past another car in ordinary pleasure driving, where the road is barely wide enough, unfortunately occurred to a member of the club recently. The Rev. Arundell Whatton was driving up to Shropshire, and when 5 or 6 miles on the London side of St. Albans, without any warning being given, or at least without any audible to either of the persons in the car, felt the offside violently struck. The Hon. M. S. Bowen was at the moment steering, while Mr. Whatton was sitting on the footboard adjusting the lubricator. Mr. Bowen managed to keep a straight course, and in an instant a large 15 horse power Panhard rushed by on three wheels, plunging from side to side of the road, and, of course, swaying in a horrible way. In a short distance it ran off the road, and completely overturned, lying on its back with the wheels still spinning. Mr. Bowen had, with much presence of mind, avoided its gyrations, and pulled up. On returning, he and Mr. Whatton found that by almost a miracle the only personal injury was a few bruises on the mechanician's leg, the two gentlemen with him being unhurt. The poor Panhard appeared to be smashed a good deal, one wheel being wrenched off the axle, and lying (or, rather, the rim of it, for the spokes were torn out at both ends) some way off.—*Automobile Club Journal.*

An English contemporary describes an electric puncture detector based on the following principle: A thin wire is stretched across the tire about one-half inch out of contact with it. When a nail is picked up it will break this wire, which releases a spring actuated switch and thereby short circuits the ignition battery through a fuse wire. The fuse is immediately blown and gives notice to the driver that a nail has been picked up, and he can then stop and extract the nail, often before it has completely penetrated the tire.

...COMMUNICATIONS...

Grades of Gasoline.

Editor HORSELESS AGE:

What is the difference between "common stove gasoline" and other gasoline? I have been unable to get any definite answer from the dealers.

Is there any difference in power between low test and high test gasoline? I have heard very intelligent drivers claim opposite results. E. H. BALDWIN.

["Stove gasoline" is a brand sold by the Standard Oil Company which is claimed to vary between 72° and 74° Baumé. Some users claim to have found it even of lower test than 72°. The Standard Oil Company do not guarantee the test. The actual power value of the gasoline changes little with the density, as you may see by referring to the table published in our issue of September 9. The power of a given motor may vary considerably with fuels of widely differing density, as, for instance, an insufficient charge may be drawn in when the heavy oil is used, or it may be incompletely vaporized. The effect of varying the grade of gasoline may thus be different with different motors and carburetors.—ED.]

MINOR MENTION

Virtue, Pound & Co., of Rushford, Minn., and makers of the Theim gasoline engines, have commenced the manufacture of automobiles.

A meeting of the creditors of the American Motor Carriage Company, of Cleveland, Ohio, was held at the offices of the receiver on September 16.

Whitten & Cameron, automobile dealers of Springfield, Mass., have dissolved partnership. The business will be continued by J. E. Whitten and E. R. Clark.

The State Board of Equalization of Minnesota is experiencing much difficulty in assessing the automobiles of the State, there being no precedents by which to arrive at just valuations.

Appraiser Whitehead, of the Port of New York, has held up thirteen foreign automobiles on the claim that the owners are seeking to import them without paying duties on their full value.

We are informed that in a 5 mile race at Lowell, Mass., on September 12, A. E. Morrison, of Boston, won in a Peerless stock machine. Second place was taken by Louis McDermott, also in a Peerless.

The trustee of the Spaulding Automobile and Motor Company, of Buffalo, N. Y., has issued a summary statement showing that out of $2,700.05 collected 14.45 per cent. has been paid on the claims of creditors.

Secretary Frank Weldon, of the Southern Inter-State Fair, to be held at Atlanta, Ga., is promoting a 100 mile race between an automobile and a railroad train, to be held along a Southern railway line at the time of the fair.

With the Overland Car Through Utah into Colorado.

(Communicated by the Packard Motor Car Company.)

The main range of the Wasatch Mountains was to be climbed from Tucker on to Soldier Summit. On July 7 the car had ascended about 2,000 feet from Salt Lake City to Tucker, but the ascent had been gradual. The start from Tucker was made at 7:45 o'clock on July 8, the cyclometer showing 1,141 and the barometer 23.88, indicating an elevation of 6,100 feet. The hills out of Tucker were severe. At 8:30 o'clock 5¾ miles had been covered, and the car climbed to an elevation of 6,870 (barometer 23.22), with many down grades sandwiched in between the climbs. Soon Soldier Summit was reached, 140 feet higher, and the divide of the Wasatch Range, where the barometer (22.85) showed almost exactly the same altitude as at the summits of the Sierra Nevada, namely 7,350. The car had risen 1,250 feet in one hour fifteen minutes, and the ground was rougher than in the Sierras and the climb less steady.

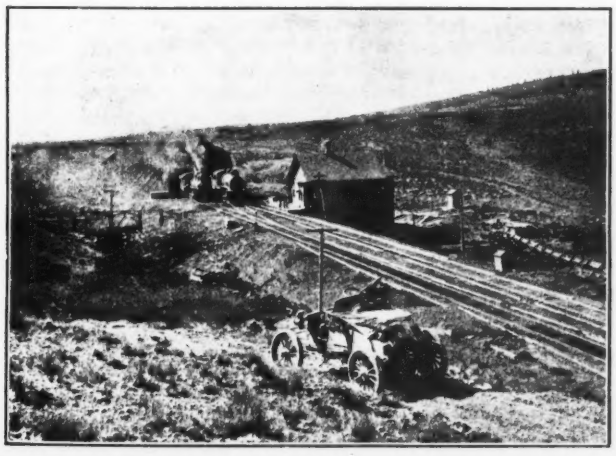
The gradient of the D. and R. G. Railway at Soldier Summit is said to be the steepest on any main line in the world—about 4 per cent. In the immediate vicinity of Soldier Summit is seen a unique mining plant, the only place in the world wnere "mineral wax" is found, which is used as the principal material for the recording cylinders of phonographs.

At 9:30 o'clock a rivulet was crossed narrow enough to step across, but forming a triangular gutter with hard but slimy sides, so that the car could not be rushed across without bumping things severely. It proved a twenty minute obstacle, as the rear wheels simply turned around in the trough until stones were dumped in. From this point to Colton a railway grade was followed, built by the U. P. Railroad Co. It extended for many miles and saved many grades, though the top was so narrow and the fills so high that steering had to be quite accurate. Near Colton the bank of this grade formed one side of an artificial fishpond, a sight somewhat surprising in these surroundings.

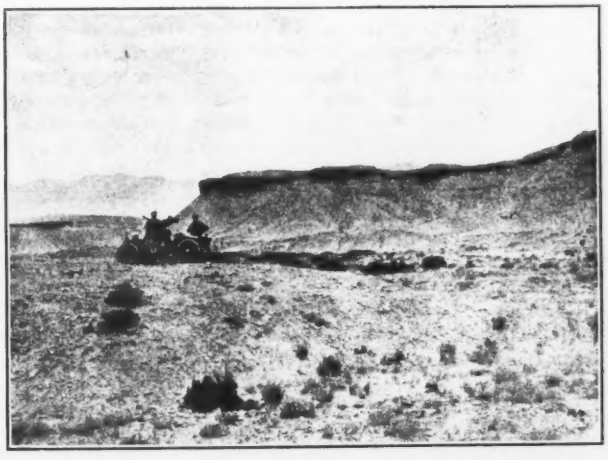
At Colton it was said that the Castle Valley road was absolutely impassable. Where the valley narrows down to a 20 foot passage between vertical cliffs, barely admitting the railroad and wagon trail beside it, it was said the wagon road portion had been washed out completely, and there was positively no way of getting through. The people of Price, later, agreed with J. J. Cramer, of Colton, whose advice to go by way of Soldier Canyon was followed, that it would have been absolutely impossible to have reached their town from the west in any other way. Instead of going 30 miles southeast from Colton in a direct line, the route lay easterly for 34 miles and then back, at an acute angle, southwesterly for 20 miles through Soldier Canyon.

The very exit from Colton was so steep that the entire village population turned out to see the machine scale the height, and this was followed immediately by a succession of hills ranging up to 40 per cent., both up and down. The first 5 miles were said to be the worst, and on one hill the driving wheels spun a little on a firm clay footing when the flywheel momentum was clutched on, just from the steepness of the grade. The rest of the way had no such grades, but it was unceasingly rough. For about 20 miles after leaving the main railway the road followed a light rail, narrow gauge spur along the foot of the mountains which form the southern boundary of the Uintah Reservation. Over this spur rock is carried by gravity to Colton from the Cayune quarries and timber from farther east in the mountains. Beyond this were met a freighter and his assistant with two four horse teams, each drawing two small wagon loads of "mineral rubber." The freighter, whose wife was along, was at first inclined to swear when his horses became a little unruly, but soft words and assistance soon made him friendly and communicative. "Never in his life would he have thought that he should meet one of them things on this road." He had thought they were for boulevards only. His own load was divided on two small wagons for each four horse team, so that he could take up one at a time over stiff grades. His ideas of motor cars were manifestly changed then and there.

As the tourists saw afterward, they were traveling on a broad branch between Castle Valley to the south and the cliffs beading up to the Uintah section to the north. This bench is called the Park; it affords some grazing, and here and there the footprints of cattle indicated that it was not entirely devoid of population, though all that was seen of human beings for 43



Soldier Summit on Divide of Wasatch Range, Utah.



Cliffs of Pale Clay Surrounding Flats of Sand.

ENTRANCE TO SOLDIER CANYON.

miles were the freighters with the mineral rubber and two young men with a team hauling a load of lumber. Washouts across the track and the now familiar high ridge between the ruts became very numerous and annoying, but some of the oldest and deepest ravines had been bridged, not over their entire width but over the smaller gully that usually rent their flattened deepest portion. An observation at 2 o'clock p. m. gave cyclometer, 1,175⅝; barometer, 22.78, showing the altitude still to be 7,350 feet. While running along on this high bench or plateau a water leak was discovered. The short rubber hose connection between the water tank and radiator had been struck too often by the compensating rods connected with the front spring shackles (the arrangement to which the flexibility of the running gear is mainly due), and had finally given way—something which could never occur on civilized roads, but was bound to happen sooner or later in this ditch-jumping contest. A little rubber tape stopped the leak and as water was scarce the occupants felt relieved.

A little before 4 o'clock a house and a fence appeared on the left. It was Whitmore's ranch, the tourists had been told, and being the only habitation for many miles, there was no possibility of mistake. It was the signal that here they would find "the excellent stage road through Soldier Canyon to Price," as it had been described by somebody who perhaps was in a sarcastic vein. "You can tell it easy by the telephone poles"; and, surely, there were the telephone poles, short iron pipes, scant 2 inches in diameter, forming an approximately straight line, uphill and down dale, now close to the wagon track and again, refusing to follow its endless curvatures, shooting off across the rocks. The canyon did not look worse in any place than many other easier pieces of road or virgin soil. But it was, mostly because there was heavy and continuous traffic over it. During the afternoon and evening perhaps twenty-five freighters were met, mostly with four horse teams and heavy loads, all hauling goods from Price to the mining camps up north. This traffic day after day had worn the ruts very deep, but had not touched the boulders in the middle, and unfortunately there was usually no room on either side of the track, which necessitated staying in it and overcoming the ridge and stones in the best way possible. On the right hand side there was an exceedingly rough, rocky slope of 60 to 90 degrees, and to the left an ugly torn up ravine, obstructed in many places with gigantic angular stones weighing tons and hundreds of tons. When freighters were sighted it was a question of reaching a turn out place before they passed it, or else of backing out a considerable distance. Luckily most of them were met farther down the canyon, where the passable area broadened more frequently.

After several unpleasant experiences with the boulders, resulting in stops to turn the rear axle back to its correct position, and also in a very slow pace so as to minimize the danger of breaking the chain or something else if the height of a ridge or stone were miscalculated, smaller stones were piled in the ruts on both sides of the obstruction in the middle and the car thus bodily lifted over the obstruction. Three miles negotiated in this manner consumed two hours, although the road was downhill nearly all the time. At 6:10 o'clock a descent of about 1,300 feet had been made, to an elevation of 6,000. Thereafter the canyon widened into rough flats, with sand and stones, hedged in by vertical crescent shaped clay banks. Immense ravines separated one flat from the next one lying terrace like beneath it, all of them surrounded by clay banks. The last few miles the road was somewhat better, and this was fortunate, as it was rapidly getting dark.

The car arrived at Price at 8:15 o'clock, cyclometer, 1,205½; gasoline consumption, 6 gallons for 63½ miles, mostly on the hill climbing gear. Those of the population who noticed the arrival at the late hour were utterly astonished, and the astonishment quickly changed into enthusiasm, as the people in this section of Utah have sporting blood in their veins. Shelter for the car was found in a friendly blacksmith's shop.

The hunt for gasoline in the morning after the hardest day of the journey lasted till 10 o'clock, when 10 gallons were bought. Citizens clamored for rides in the car, and compliance with the wish advanced the cyclometer 6½ miles, to 1,212. The water hose connecton was mended by means of a piece of bicycle tire. It was noon then, and it was concluded to rest the balance of the day.

The tourists left Price at 6 a. m. on Friday, July 10. Breakfast was taken at Wellington, 6 miles down the narrow Price River Valley. Cliffs of pale clay surrounding flats of alkali sand with scant vegetation continued the conspicuous and characteristic feature of the landscape. Soon the trail left the river and led into genuine desert, but first traversed a district where large and small arroyos were nearly as frequent as at Lucin, and averaged larger in dimensions as well as steeper. In one of the larger gulches the first two yards at the climbing out place measured 32 degrees (23 inches rise to the yard, or about 63 per cent.), and the remaining 18 yards 7 degrees (over 10 inches to the yard, or 28 degrees). In no other place had the dead load of the car been reduced to facilitate the surmounting of a grade, and here, too, this expedient was avoided, but only barely It required hard pulling on front wheels to overcome those first two yards of 63 per cent.

In the ravines, where the snow lies deep and late in winter and spring, scrub cedar thrives well. Crossing one of these, a long suffering front axle radius rod—the lower left one—was fractured at the ball joint, and nothing could be done except to strap it to the rod above it so as to prevent further damage and rattling. The incident did not seem to affect the car then, though it was suspected it would in course of time, since the two braces on each side certainly were not placed there without distinct purpose, and the fracture proved a high stress which now would have to be absorbed in some other portion of the car's anatomy, probably the front axle and spring and the steering rods and knuckles.

So far the route had been at some distance from the Book Cliffs, all the time visible to the north. Approaching Woodside, a settlement and railway station on Price River, the tourists drew closer to this forbidding wall separating a rough but well watered plateau at its top from the desolate country underneath, which apart from a narrow strip along the river is fit only for winter grazing. Fording the river at Woodside proved more of an undertaking than had been expected. The river has a shallow, sandy bed, but the sand is shifty and treacherous to a heavy load. The car was driven across the watercourse without trouble, although the first attempt was unsuccessful, and brush and jacks were needed to back it for a new start. The work with jacks and brush would have to be done over a second time; time was precious if Green

River was to be reached that evening, and so, as a team of horses happened to be at work close by, the team was engaged to drag the car back from its false start. With the assistance of the motor this was accomplished with ease, and the car then shot forth unassisted along the proper course, crossed the river again and made for the brink without further difficulties. But at the brink the unexpected happened. Here there was a deep irrigation ditch, which had been roughly bridged, but the bridge had been washed away. While one of the occupants looked around in vain for another place where the ditch might be crossed and the levee on the other side of it scaled, the driver gathered the strewn about members of the bridge together, dumped them in the ditch and, as they were slimy round pieces of undressed timber, covered them with the strip of canvas carried along, and by one of the usual tours de force accomplished the passage.

The attempt to reach Green River by daylight failed signally, and the last two hours were traveled in perfect ignorance of what the country looked like save for the few rods on both sides of the trail where the kerosene oil headlight shed its feeble rays. All the rest was complete darkness.

At Woodside, Price River bores itself in between the Book Cliffs to the north and the equally precipitous cliffs of what is known on some maps as Beckwith's Plateau, to the south. Leaving the river the western edge of the plateau was followed, which is triangular and rises so abruptly out of the desert that it seems perfectly inaccessible. It was said that there were a few places along the northern edge of this plateau where cattle and men could climb to the table land at the top of the cliffs, but of this no indication was seen. At a temporary section house a gang of Italian railway laborers admired the car effusively, and the foreman gave valuable directions as to the course to pursue, mixed with warnings of the drift sand that would be encountered. Shortly thereafter the lamps were lit and the moon went behind the clouds, not to be seen again that evening except at rare intervals. The night was hot, but an extra supply of water had been laid in at the section house. Several rests were necessary, however, to keep the water from boiling away, for the going was all on the low gear, with no wind stirring and the motor frequently running fast, while the car progressed only slowly. At the sand fences along the railroad, which were hugged as closely as possible, the sand was heaped in drifts like snow, and the same was the case wherever the road curved around a hill. In many places the trail was concealed for short distances, and in trying to trace it the wheels often ploughed deeply through the movable mass.

Near Desert Station, where the east bound passenger train was waiting for the west bound to pass on the main track, the engineer on the latter, speeding up toward the car, suddenly put all the brakes on and brought his train to a standstill. Having seen the headlight of the car, he had scented danger of a head end collision, but soon discovered the innocent cause of his tribulation and sailed past. This train carried James W. Abbott, special agent of the Bureau of Public Road Inquiries (United States Department of Agriculture), who had specially gone to Green River to meet the transcontinental tourists, his interest in the expedition being due to the bearing it might have on the good roads movement in the West. He proceeded to Price, took a return train to Green River, and saw the tourists the next morning.

Within a few miles from Green River the road was plainly marked and much better, and the town was finally reached at 10:30 o'clock, but nearly everybody had gone to bed and it was impossible to get quarters for the machine. The camping outfit was for two only, and Messrs. Fetch and Allyn made their beds with the car, while Mr. Krarup stretched himself on top of a bed in a hospitable boarding house for railroad laborers.

It was 9 o'clock the next morning when the car was let down a steep incline to board the cable ferry across the river. The tourists had no illusions about the road to Thompson's Springs, the last place with a natural water supply on the way to Colorado. It was desert, pure and simple. At Solitude there were signs of activity. Twelve miles south of this shipping point the Colorado Fuel and Iron Company owns some manganese mines, whose product is hauled to Solitude by a traction engine and substantial trailers. The tracks measured only 7 or 8 inches. Everything at Solitude—a store, a cistern and some sheds—is due to this enterprise. The cistern affords drinking water for men and animals and is kept full by a pipe line from the water tank at the railway station, about half a mile away.

The rest of the way to Thompson's Springs was rough, but presented no other difficulties than those already familiar. The car progressed as directed, sometimes slowly and sometimes faster, according to the nature of the traveling surface. Within 6 miles from Thompson's a leaky water tank fed by a pipe line from the springs in that village was much appreciated by the birds of the desert, and at night probably by the few coyotes that find subsistence in the vicinity. The drippings from the tank furnished not only a needed potation, but also a refreshing shower bath for head, face and arms, being blown into a fine spray by a hot wind which at that moment was sweeping over the landscape.

Thompson's was entered at 3:15 o'clock, and at this point it was decided to wait till after sundown before continuing the journey toward Grand Junction, Col., 78 miles.

An Interview With James B. Dill Regarding His Trip to Maine.

In an interview with a representative of THE HORSELESS AGE, James B. Dill, the New York lawyer, who has just returned from an automobile trip into Maine, expressed himself as very enthusiastic over that section of the country as a field for automobile tours.

Mr. Dill declared that the country roads of Maine average much better than those of some of the States farther south, although the latter States are better provided with regular turnpikes. The hotels and inns, according to Mr. Dill, are not surpassed by those of any other section of the country.

Mr. Dill was accompanied by his two daughters and two chauffeurs, and the trip was made in three steamers, one loaded with spare tires, parts and supplies. Considerable difficulty in securing gasoline was experienced, and at times it was necessary to ship cans of this fuel to points along the route.

"THE ROAD FOLLOWED A LIGHT RAIL, NARROW GAUGE SPUR ALONG THE FOOT OF THE MOUNTAINS."

Massachusetts Law Does Not Require Tourists to Register.

Editor HORSELESS AGE:

In your issue of September 2, under "The Legislative Aspect of Touring," it is asserted that Connecticut is the only State making an exception to the rule that tourists as well as resident automobilists shall register and carry a license number issued by every State in which they travel.

Although the Massachusetts law is not all that may be desired, at least from the standpoint of the automobile owner or operator, nevertheless it does not require registration and licensing of tourists who are licensed in some other State.

The Tour of the Dill Party.

An automobile tour that was given much prominence in the daily press was that of the Dill party, from East Orange, N. J., into the Maine woods during the latter part of July and the first part of August. The party included James B. Dill and his two daughters, and two chauffeurs, and the trip was made in three steam touring cars. One of the cars served as baggage car and was fairly loaded with spare tires, hampers, oil and gasoline cans, etc. To provide further against the emergency of running out of gasoline and being unable to renew the supply, cans of it were sent to various places in the sparsely settled portions of Maine.

It is said that the trip was made as the result of a wager at the A. C. A., and the tour was started upon from New York city Boston was reached on July 21 without any great difficulty, and on the 22d, at 1 p. m., the trip was resumed. Mr. Dill carried maps of the complete route, which led through the northern part of New Hampshire and then through the Maine woods to the Rangeley Lakes. On the first day after Boston was left Portsmouth, N. H., was made by way of the North Shore road, and from there the route led to North Conway and Colebrook. At Colebrook the difficulties of sparsely settled mountainous country began. The trip to the Rangeley Lakes was figured to require about a week's driving, Mr. Dill calculating on an average speed of 15 miles an hour. In an interview Mr. Dill said:

"We shall stop in the Rangeley lakes district till the first of September, and when we return we will probably come by another route. I am taking this trip to show that the best and most honest test for an automobile is not to run it over the macadam roads of New York city, or up the Hudson, or from New York to Boston, such as the manufacturers do, but to put them where they will have to stand work and show what they are good for."

M. Gustave Rives, who has successfully managed the successive annual automobile shows held under the auspices of the A. C. F. has been made an officer of the Legion of Honor.

MR. DILL IN HIS WHITE TOURING CAR.

Vienna's Prospective Auto Ordinance.

The local representation (aldermen) of the Thirteenth Vienna (Austria) District, Hietzing, has unanimously declared in favor of a set of most restrictive automobile regulations which are now being circulated among the other district representations. The reasons for the restrictions are explained as follows:

"Years ago complaints were made about the fast and careless riding of bicyclists, and many mishaps and accidents were caused. Since then the conditions have improved. But how insignificant are the dangers which accompany bicycling when compared with those due to automobiles. If we station ourselves in any of the frequented streets, we will not have to wait long until we see one of these infernal vehicles rushing along, blowing, hammering, rattling and moaning, the occupants of which, made unrecognizable by masks and laughable articles of dress, unconcerned regarding pedestrians, bicyclists and occupants of other vehicles, are hurrying toward their destination at a maddening speed. In case of an accident no one is able to overtake the madman and make him responsible. Has one the misfortune to meet several gasoline motors at short intervals, the discharged vapors also cause intense coughing spells and exercise a poisonous action on the breathing organs, not to speak of the dust stirred up and the mud thrown in all directions."

The rules decree that all automobiles must be free from noise and odors; a speed of 6 to 7½ miles per hour must not be exceeded; all cars must carry large numbers both in front and rear; all drivers must pass an examination; women are not allowed to drive, etc.

The peculiar tone of the introduction to these legislative recommendations shows the Vienna aldermen to be less unbiased than they would be expected to be. It would be interesting to learn the reason why women are not to be allowed to drive automobiles.

Washington Police Equipped with Speedometers.

Major Sylvester, of the Washington (D. C.) force, has determined that in future cases in the police court where owners and operators of automobiles are arraigned on the charge of exceeding the speed limit there shall be no doubt in the mind of the court as to the accuracy of the testimony of the bicycle policemen who prefer the charges. The bicycle will therefore be equipped with speedometers, and to make sure of the accuracy of the instruments trials were made recently over a measured off stretch between Fifteenth street N. W. and E street and the entrance to the monument grounds. Seven policemen took part in the trials, their wheels being fitted with Jones' speedometers, and it is stated that the electric timing apparatus showed them to be of great accuracy.

The police of Oxford, England, on a recent festive occasion indulged in a speed guessing game, the speed being produced by a motor bicycle. The winner made a guess of 23 miles per hour, when the actual speed was 24 miles per hour.

..COMMUNICATIONS..

Whitman's Transcontinental Tour.

OMAHA, Neb., August 23.

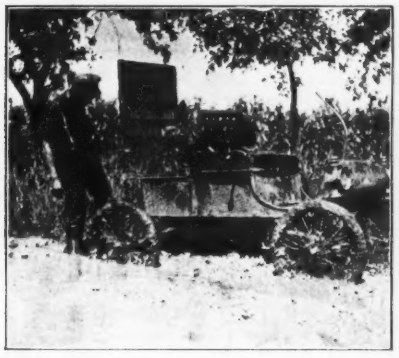
Editor HORSELESS AGE:

I enclose a few prints which tell the story of our trip through Nebraska last week. Six heavy rains in five days turned this flat country into a lake. We therefore took it as best we could, and stayed in three towns two days each. We made a few days' run in the mud, when we thought we should be drowned if we stopped longer. One day we made 16 miles in the morning on the slow speed, just to see how the thing worked, and we found out all right.

If we thought our letter to the mayor of New York from the mayor of San Francisco should be rushed, I am afraid we should have to put on paddle wheels. The mud was awful. You would ride into a slough without a jar, the same as on feathers; then, as you settled deeper and deeper, the wheels would bring up tons of mud, and when the axles got over two feet under, the hind wheels spinning like a circular saw, and the mud flying in a stream on each side 40 feet high, it was about time to throw out the clutch and take your bearings. High ground could generally be seen in the distance. Then we would light up our cigars and argue the case, but in the end we managed to get out and rush away, anxious to get into the next mud puddle just over the next roll in the prairie.

All roads are on section lines, a mile apart; the mud holes seem to be much nearer, but our cyclometer was out of sight, and we simply went by our feelings. If you are a hard worked city man and want recreation, take your automobile and hurry out here in Nebraska, and as I am sure we shall be here when you come, I shall put you on to a few good things in this line. Our machine is holding together well, being bound up in a cake of dried adobe—not a nut can jar off or a tire cut.

L. L. WHITMAN.



HAMMOND "LOOKING FOR TROUBLE" IN NEBRASKA.

IN THE PLATTE RIVER.

WHITMAN SOUNDING BOTTOM WITH A FENCE RAIL.

Light Versus Heavy Cars.

Editor HORSELESS AGE:

In your issue of August 29 a user claims a very laughable advantage for heavy vehicles, viz., that adding a passenger does not increase the percentage of live to dead load so much as with a lighter vehicle. He is undoubtedly serious in this matter, so I take the liberty to call attention to the fact that the advantage is found in large horse power in proportion to the live load rather than in large weight of vehicle. A heavy vehicle requires a large motor, and a large motor will unquestionably handle an additional 20 per cent. of weight much better than a small motor will handle an additional 47 per cent., but this is no argument against a light vehicle. Much better results will be achieved from the same motor if a lightweight vehicle having no needless weight is driven by it. Designers as yet have not secured the most efficient proportions. The mechanism should not only be powerful, but light, while the shock receiving parts, such as wheels, tires, springs, axles and bearings, must be amply strong and of large size.

C. E. DURYEA.

Splash Lubrication in Two Cycle Motors.

NEW YORK, August 29.

Editor HORSELESS AGE:

For the past ten years I have made a close study of both two and four cycle motors and have used splash lubrication in both types; it is also used by the following companies, manufacturing two cycle motors: Lozier, Howard (Grant-Ferris), Palmer, Leighton, Gray, Clifton, Smeckum, Dutton, Rochester, Wolverine, Superior, Hubbard, Smalley, and many others.

If the motor is properly designed and carefully built there is no doubt but that the splash system of lubrication will do its work and do it properly; otherwise the above named concerns would have adopted some other system. I have used it on both the vertical and horizontal motors; there is one point to which I wish to call attention, and that is that the oil must be gas engine oil of a high test and not the ordinary machine oil.

GEO. R. MORAN.

To Prevent Spark Plugs from Sooting.

CENTRALIA, Ill., August 24.

Editor HORSELESS AGE:

About a year ago my partner noticed in THE HORSELESS AGE a suggestion that a short nipple between the cylinder and the spark plug would partly overcome the difficulty of dirty plugs. We had no room for a nipple, but we put in a steel L in such a way as to make the plug stand upright. We have never had a dirty spark plug since putting in this steel L. A common L and a short nipple would answer the purpose. I hope automobile users will try this and quit complaining about trouble with dirty spark plugs. H. T. C.

In the Market for Steam Trucks.

CHRISTIANIA, August 6.

Editor HORSELESS AGE:

I am glad to inform you that in reply to my letter which appeared in a recent issue of your journal I got all the necessary information with regard to motor vehicles on rails. I have now an inquiry for a steam wagon for carrying 5,000 kilogs. (5 tons) of grain, and which must be guaranteed to maintain a speed of 4 to 5 miles on a 6 per cent. grade when fully loaded. If the first vehicle should give satisfactory results the same firm will purchase nine similar trucks and several smaller ones. The fuel consumption, etc., must be fully guaranteed, and the trucks must be delivered f. o. b. liner in New York in running order.

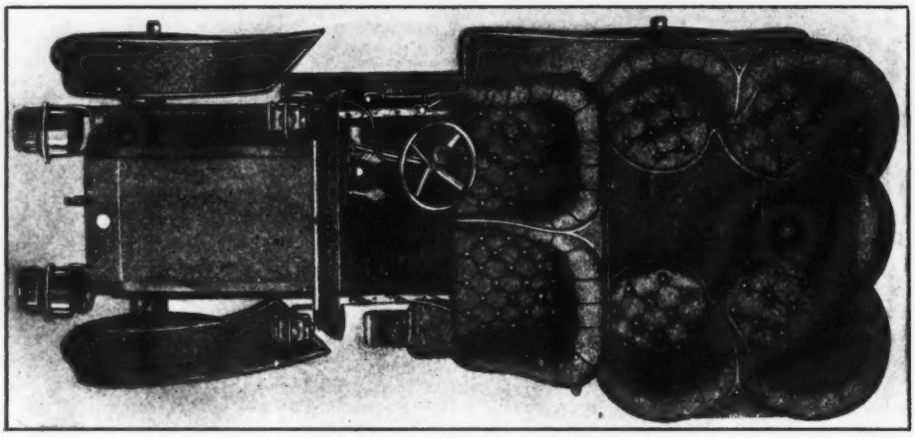
F. HIORTH.

The municipal government of St. Petersburg, Russia, has decided to invest 6,000 roubles in three automobiles for its messenger service. At present it pays 200 roubles rent per month for one machine.

NEW VEHICLES AND PARTS.

The New Forty Horse Power Apperson Touring Car.

The new high powered and luxurious touring car which the Apperson Brothers Automobile Company has recently produced and which ran in the A. C. A.'s fall run to Boston and back is claimed to represent a new type among the productions of the American automobile industry, being the first six passenger, four cylinder, high powered car yet built in this country. As shown by the accompanying illustrations, the car has six individual seats, all with high backs and equally comfortable. It has a large space for carrying baggage and touring equipment, large fuel tanks and a tank for lubricating oil holding a supply sufficient for a 1,000 mile run. Compartments for carbide for lamps, spare tubes and supplies, drawers for tools and portmanteaus for rain coats are all parts of its regular equipment.



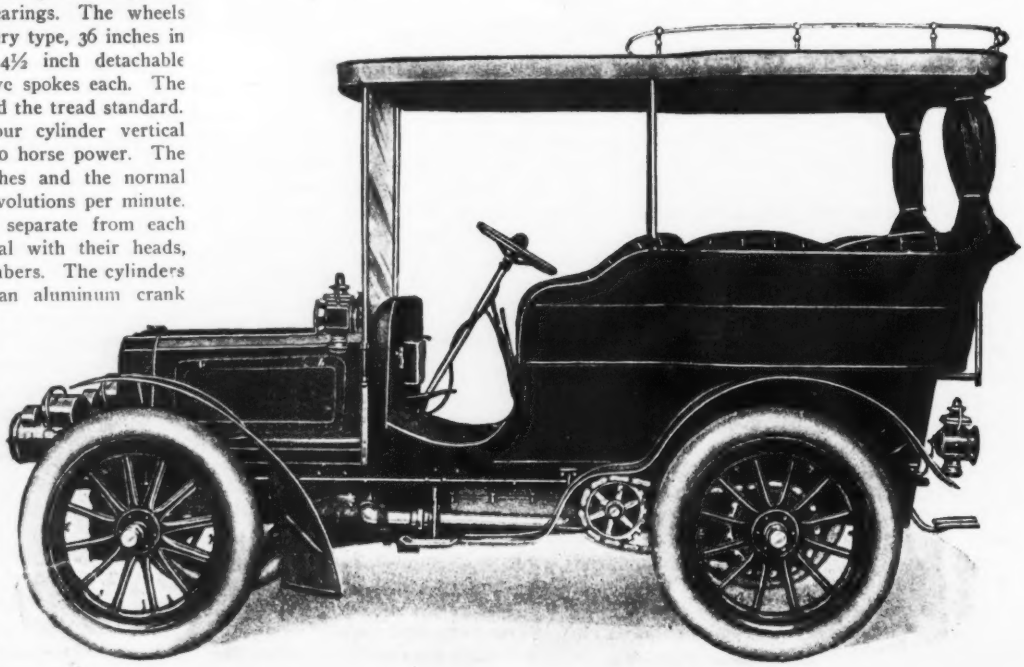
SHOWING ARRANGEMENT OF SEATS IN APPERSON TOURING CAR.

The frame is constructed of angle steel, 2x3½ inches, filled with wood, and is suspended on semi-elliptic springs in front and full elliptics in the rear, both 36 inches long. The front axle is of solid steel of square section with 1⅞ inch sides. The steering pivots are of the Lemoine type. The rear axle is stationary. All the axle bearings are roller bearings. The wheels are of the wood artillery type, 36 inches in diameter, shod with 4½ inch detachable tires, and having twelve spokes each. The wheel base is 8 feet and the tread standard.

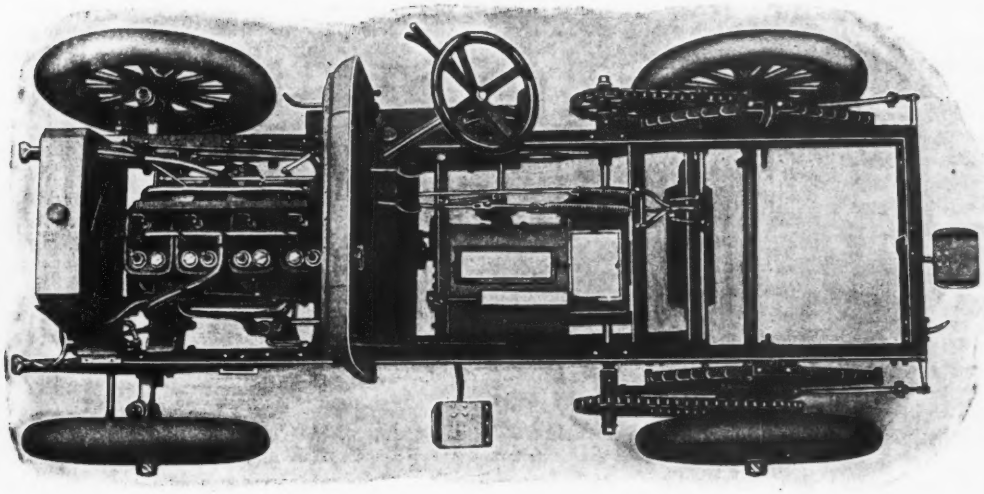
The engine is a four cylinder vertical one, said to develop 40 horse power. The cylinders are 5x6 inches and the normal engine speed is 600 revolutions per minute. All the cylinders are separate from each other and cast integral with their heads, jackets and valve chambers. The cylinders are bolted down to an aluminum crank chamber provided with heavy brackets by means of which the engine is supported on the vehicle frame. Both inlet and exhaust valves are mechanically operated, and are located at the same side of the cylinder. The ignition is by jump spark, the spark plugs being screwed into the caps over the inlet valve. The ignition current is supplied by a storage battery and four coils are used, one for each cylinder. The current is distributed to the various coils in turn by a commutator, secured to the dashboard and driven from the cam shaft by means of a chain. The commutator is provided with a glass front and its operation can be observed by the driver while in the seat. The coils are also carried on the dash.

The combined water tank and radiator is of the square front or Mercedes shape, but is constructed on quite different lines. It consists of an upper and a lower tank, which are connected together by a large number of vertically arranged, small, flanged copper tubes. The air is drawn through the spaces between these copper tubes by a fan, belt driven off the engine Circulation of the cooling water is insured by a gear driven centrifugal pump.

The gasoline tank is located under the forward seat and feeds the carburetor by gravity. The speed of the engine is controlled by means of a throttle valve built together with the carburetor. The engine lubrication is on the splash system, a multiple feed magazine oiler being placed at the side of the cylinders, which supplies lubricant to the crank chambers of the engine and the transmission gear case. On the dashboard of the car is arranged a kerosene pump, which is in communication with each of the cylinders. By giving a stroke to this pump kerosene can be forced



APPERSON SIX PASSENGER TOURING CAR.



CHASSIS OF APPERSON TOURING CAR.

into the cylinders for the purpose of cleaning its walls of any carbon deposits which may have formed.

The clutch is of the friction band type, operating on a drum bolted to the flywheel and flexibly mounted on the gear shaft. The transmission is of the sliding gear type, giving four forward speeds and one reverse, all operated by a single lever. The transmission pinions and gears are drop forged of steel and hardened. The differential is placed on the countershaft and runs in oil. The gear box is anchored to the longitudinal frame members and transverse angle irons. All bearings of the gear case are oiled by splash and by means of ring oilers with return oil ways. The transmission to the rear wheels is by separate chains.

The car is equipped with two independent brakes, both double acting; one of these acts on the outside of the differential gear case, and is operated by foot. The other acts on drums integral with the sprockets on the rear wheels and is operated by a hand lever, the latter forming the emergency brake.

The car is equipped with large steel fenders and wind shields. It is nicely finished and upholstered, and very roomy and comfortable. The weight complete is about 3,000 pounds.

New Thirty Horse Power Daimler Touring Car.

The Daimler Manufacturing Company, of Long Island City, N. Y. has just completed the first of a lot of 30 horse power touring cars, corresponding to the well known 40 horse power Mercedes cars of the Cannstadt Daimler Company, some views of which were shown in our issue of September 30 last. It may not be generally known that the Daimler Company owns all of the American patents issued to engineers of the Cannstadt firm, but such is the case, and the German Mercedes cars are sold in this country by M. Charley through arrangements with the Daimler Manufacturing Company, of Long Island City, every purchaser of a German Mercedes car receiving a document in which this sales agreement is referred to. Besides, the Daimler Company owns patents taken out by its own engineers, and some of its improvements, we understand, will be embodied in the next year's Cannstadt cars.

The new cars are only rated at 30 horse power, though the engines are said to develop up to 40 horse power. In general they resemble the Cannstadt Mercedes car which has already been described in our columns, but possess a number of improvements in various parts of their mechanism, to which we shall chiefly confine ourselves in this description.

THE FRAME.

The frame is of a novel construction which is said to provide great flexibility. The side beams are of channel steel and are of two parts. At the front the frame is narrower than at the rear. The forward parts of the frame beams extend to about midway between the axles and are straight; they carry the motor and change gear. The rear parts of the side beams are curved inward at their forward ends, and at their extreme forward ends are riveted to the forward parts of the beams. All the other joints of the frame are pivot or swivel joints. The forward spring horns are welded on to the frame beams. The semi-elliptic body springs are 33 inches long in front and 36 inches in the rear.

Both front and rear axles are tubular and are cranked or dropped in the centre, to admit of placing the frame very low. The wheels are of artillery pattern, 36 inches in diameter, with twelve and fourteen spokes in front and rear respectively, and shod with 4 inch pneumatics. The wheels run on roller bearings, with hollow or tubular rollers. The roller bearings comprise cages of two bronze end rings connected by a number of steel rods on which the rollers are mounted. There are two rollers on each rod of unequal length, and the two sizes of rollers alternate as to sides; that is, on one rod the longer roller is on one side and on the next rod on the other side. Thus the rollers overlap each other, and the tendency of wearing a ridge on the surfaces on which the rollers run is avoided.

The steering pivots are located at the centre of the hubs, which reduces the reactions on the steering connections to a minimum. The latter are tubular, with ends welded on. The joints are forked, except the one at the end of the arm connected to the worm gear sector, which is a ball and socket joint. The steering is effected by a 16 inch hand wheel of aluminum with hardwood rim, and through the usual worm and sector irreversible mechanism properly enclosed in a dust-proof casing.

THE ENGINE.

In the engine the valve chambers are placed on opposite sides of the cylinders, both sets of valves being mechanically operated. The ignition is on the spark contact principle and the current is furnished by a magneto driven by spur gears off one of the cam shafts, the magneto driving gear being arranged at the middle of this shaft. The ignition mechanism is almost the same as that shown in THE HORSELESS AGE of January 14 last. When the igniter rod is tripped by the cam a stop pin through it abuts against a couple of layers of soft leather riveted to the top of the cam shaft casing, so as to reduce the noise of the ignition mechanism to a minimum. Another point in which this engine differs from the Mercedes is the method of circulation connections. In the latter, as we pointed out in our issue of September 30, the pipes for both the inflow and outflow enter the jacket on top. In this engine there are eight inflow connections, at the lower end of the jacket surrounding the valve chambers. There are four outflow connections on top of the cylinders. By means of the multiple connections it is sought to insure that all of the cylinders are cooled evenly. The car is fitted with a cellular cooler built up of square tubes with crimped walls. The total water capacity is 3 gallons. To produce a strong air circulation through the cooler the engine space is closed below by means of sheet metal, the flywheel spokes are formed in the shape of fan blades, and an additional fan of small size is placed right behind the cooler and is driven by a belt from one of the cam shafts.

THE CLUTCH.

The engine clutch is of a new design. It requires only a very slight effort to disengage, and is claimed to grip very gradually and without shock. It consists really of two cone clutches and is unusually well protected against mud and dust. To the outer side of the flywheel, which is chambered out in the usual manner to receive a clutch cone, is bolted a cast iron ring which is similarly chambered out, the plane of the joint forming the larger base of the two conical frustums forming the clutch chamber. Within the chamber are placed two leather lined cones fixed to concentric sleeves. A clutch spring entirely enclosed by the outer one of the two sleeves normally forces the two clutch cones apart and into engagement with their respective female cones. The two cones can be forced together by means of a pair of cams, actuated by means of the clutch pedal, and the clutch thereby disengaged. It is, of course, evident that in this form of clutch all end thrust is taken up within the clutch itself and not at bearings.

THE TRANSMISSION.

The change gear is exactly the same as that on the 40 horse power Mercedes, comprising two sets of sliding pinions and a sliding intermediate pinion for the reverse, these three sliding parts being operated by means of three racks, with which a gear sector on the operating shaft can be brought into mesh by sliding the gear shifting lever sideways when in its central position with respect to its rocking motion. The gear is exceedingly compact, considering that it gives four forward speeds and a reverse and transmits between 30 and 40 horse power, and is located directly beneath the footboard, which facilitates inspection.

While in the Cannstadt Mercedes the bevel gear and differential are enclosed within the change gear casing, they are here located far to the rear of the change gear and inclosed in a separate casing, and two universal joints are interposed in the transmission shaft between the change gear and the differential gear, this being necessitated by the flexible nature of the frame.

The sprocket pinions are mounted on short shafts just extending through the bearings secured to the frame beams, and are brought in driving connection with the countershaft by means of flexible couplings. These latter consist of two spiders, one secured to the sprocket pinion shaft and one to the differential gear shaft, and the outer ends of the arms of one spider are connected to the outer ends of the arms of the other by several chain links each. The spider on the sprocket pinion shaft carries a brake drum. The transmission to the rear wheels is of course by separate chains. The pinions have twenty teeth and the sprocket wheels on the drivers forty.

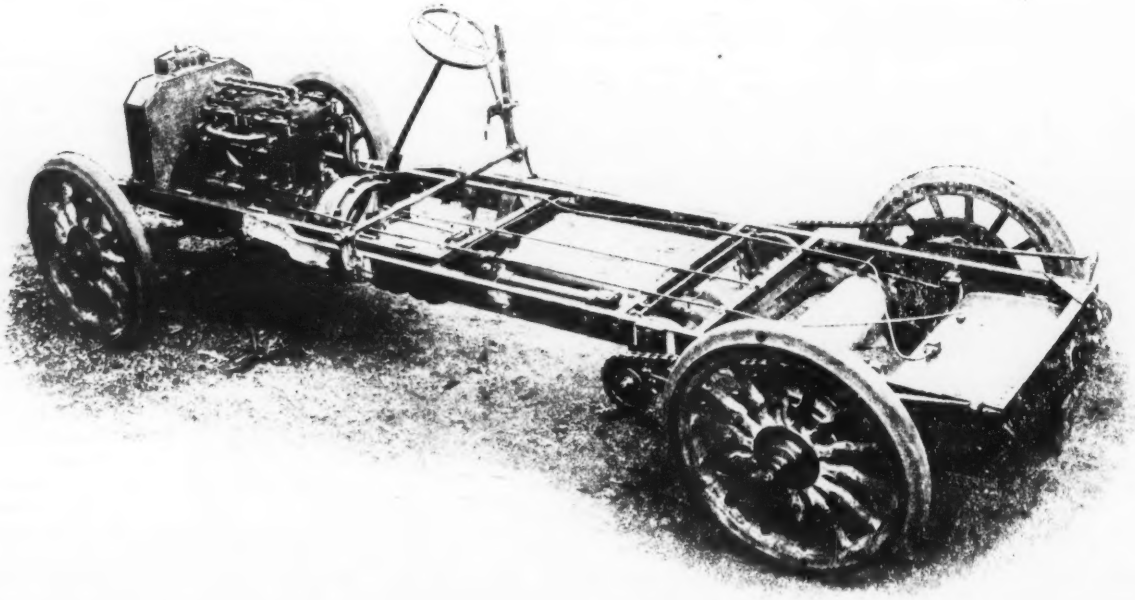
THE BRAKES.

The vehicle is fitted with two pairs of double acting brakes, one a pair of band brakes which act on the drums formed integral with one member of the flexible couplings in the countershaft, and operated by means of a pedal; and the other a pair of expanding block brakes acting on the inside of drums secured to the rear wheels. These latter brakes are thoroughly enclosed, a circular sheet metal plate being fixed to the rear axle to cover the lateral opening of the drums, and the joint being made tight by means of heavy canvas secured to the edge of the sheet and brushing against the revolving drum. These brakes are applied by the hand lever outside the seat alongside of the gear change lever.

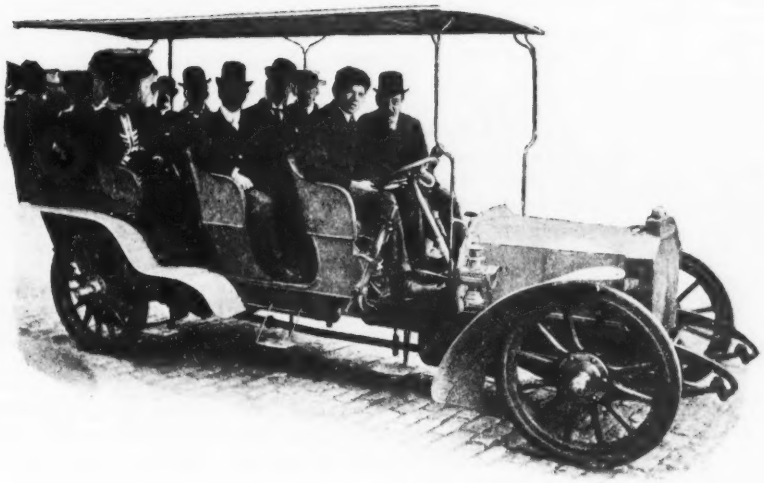
The gasoline tank, holding 20 gallons, is placed beneath the frame in the rear. This position of the tank necessitates pressure feed to the carburetor, and this pressure is derived by shunting a part of the exhaust gases to the fuel tank, which has been a characteristic feature of the Daimler system for many years. The pipes leading to and from the tank are secured to the cross beams of the frame and are surrounded by leather sleeves at these points, to prevent injuring them.

LUBRICATION.

The lubrication system of the Cannstadt Mercedes has often been mentioned as its weakest feature, it being impossible to closely regulate the amount of oil fed to the crank chamber; and very frequently when a Mercedes car starts it produces clouds of blue oil vapor. In this car an improved lubricating system is used, the engine and transmission gear bearings being lubricated from a central oiler on the dashboard. This oiler has twelve separate oil chambers and twelve separately adjustable feeds. Ordinarily the feed is by gravity, but back of each chamber there is a plunger, and should any of the bearings receive an insufficient amount of oil it is only necessary to lift that particular plunger and force a cylinder full of oil to the bearing. The reservoir consists of an aluminum casting with a glass front, the joint between the aluminum and glass being packed



CHASSIS OF FORTY HORSE POWER DAIMLER STAGE.

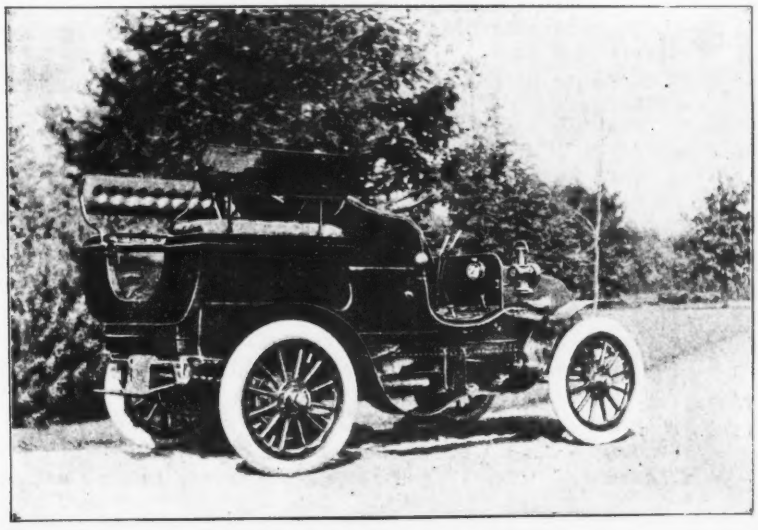


FORTY HORSE POWER TEN PASSENGER DAIMLER STAGE.

with sheet fibre. The oil is led to the various oiling places through small copper tubes, and the various tubes leading to the engine bearings and cylinders are led close together and wrapped together with tape ribbon, to minimize vibration.

The body, dash and fenders are of aluminum, and the dash and fenders are provided with a rim of brass tubing which greatly stiffens them while adding little to their weight. The bonnet is removable and has the same form as the bonnet of the Cannstadt Mercedes cars.

The Daimler Manufacturing Company has recently completed a ten passenger motor stage for Ecuador, South America, to run over an 80 miles route. This stage has exactly the same motor and transmission as the touring car just described, but a very much longer wheel base. Owing to the great length of the car it appears as of very low build. It is claimed that this vehicle can maintain a speed of 40 miles an hour on the high gear, and, as the low gear corresponds to only 5 miles an hour at normal engine speed, it is a very powerful hill climber also. The vehicle is intended for public service.



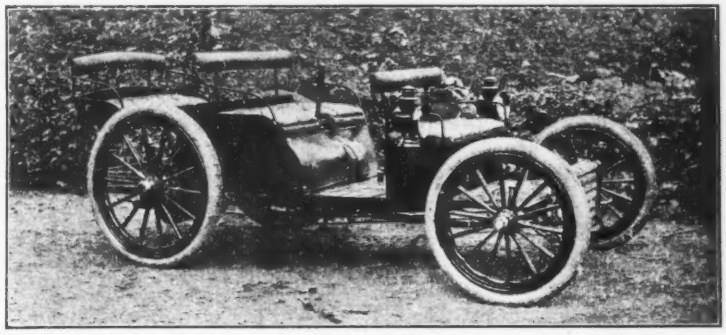
DRAPER DESIGN OF TOURING CAR BODY.

Duryea Six Passenger Car.

The illustration herewith is of a six passenger park wagon built by the Duryea Power Company, Reading, Pa., to fill a Japanese order. This they believe is the largest passenger capacity vehicle for its weight yet turned out. It weighs but a little over 1,000 pounds, has the company's regular 10 to 12 horse power motor and is claimed to be a splendid riding vehicle. It is not designed for rough roads but is quite comfortable. Its low centre of gravity and long wheel base are said to insure fine riding, while it is easy for the passengers to mount and dismount.

Touring Car Body With Increased Seating Capacity.

The photo herewith shows the 1903 Winton touring car of George Otis Draper, of Hopedale, Mass., which the owner has remodeled with the aid of a local carriage builder. While this first attempt might be improved upon, it shows the general principle of utilizing the space over the rear wheels, enlarging the foot and carrying capacity, especially in view of the two large boxes under the seats, which are much better than the usual willow baskets, as they are water tight and have locked covers. The tonneau easily carries four people, giving them ample room, and Mr. Draper thinks that something on this general principle will yet prove of considerable advantage.



DURYEA CAR FOR USE IN JAPAN.

Holland is one of the few civilized countries which do not grant patents for inventions, but the Government is now preparing a patent law, and its early presentation to Parliament was mentioned in the Queen's speech. Holland is a member of the union for the protection of industrial property, consisting of nearly all the principal countries of the world except Austria, Hungary, Russia, Persia, China and Turkey, and each country in the union has pledged itself to a large extent of reciprocity in connection with patents and trademarks.

SOUTH BEND 21, INDIANA, U. S. A.

Mr. Herbert Royston
P. O. Box 503
West Los Angeles 25, California

Dear Sir:

The thought went through my head while reading the last number of the Gazette that it is strange no write-up nor illustration has ever appeared on one of the grandest early cars ever made---the 1916 Hupmobile Model "K" Phaeton. The body lines were at least twenty years ahead of their time---in fact, it would be a mighty fine looking job today. Do you know a member who has restored one? If so, please give me his name so that I may correspond with him.

With best wishes,

Yours very truly,

K. G. Merrill

K. G. Merrill, President.
M. B. SKINNER CO.

CLUB MEMBER WELCOMED IN LOS ANGELES

Jan. 27, 1948. Ray Dougherty, of Longmont, Colarado, was in Los Angeles for several days and visited with friends, including Floyd Clymer, Herb Royston, G. A. Gilmour, & Lindley Bothwell. Ray has some nice cars at his farm near Longmont and uses them in parades and other events. Some of them are - 2 cyl. Reo touring, 1922 Rolls Royce, 1929 Detroit Electric, 1910 Ford touring, "Big Six" Studebaker, 1916 Studebaker roadster, Scripps-Booth roadster, International Harvester high-wheeled surrey.

ERRATA

Our apologies to Captain John Neren, honorary member in Stockholm, Sweden. Through no fault of his, an error in geography appeared in his article, "My First Car and How I Got It" printed in the GAZETTE for September, 1947. Kronstad, South Africa, was inferred to be a seaport when actually it is several hundred miles inland.

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SUNDAY morning, Nov. 30th, found Horseless Carriage Club members and guests converging upon 2700 Tweedy Blvd., Southgate, in antique cars, old costumes, and high spirits. The occasion was a field meet as guests of the General Motors Plant at that address and it marked the Tenth Anniversary of the founding of the Horseless Carriage Club.

Raymond Nelson was chairman of the day and much credit is due Ray and his committee for the wonderful program of events and judging that ran off as smoothly as Herbert Royston's Mercer. Ray was ably assisted by Mr. Evan White, of General Motors, and his staff, who provided registration at the gates, cafeteria service for the hungry horseless carriagite, conducted tours through the plant, motion pictures, and 1947 G. M. cars for members to drive who were skeptical of the motor car's advance.

The events got off to a rickety start at 11:00 A.M. with the Teeter-totter contest, which was won by E. J. Norbury in his 1917 Buick. Mr. Norbury did such a perfect job of balancing that everybody thought the teeter-totter was stuck and the Buick would have to be lifted off.

Mrs. Tom Mathews ran away with the honors in the lancing contest, giving credit to her husband at the wheel of the mighty one cylinder Brush.

At noon "time out" was called for refueling (lunch to you) and also to give the camera fans an opportunity to photograph the different cars.

Chairman Ray Nelson called for the Grand Parade at 1:00 P.M. instead of 4:00 P.M. as originally scheduled, to co-operate with the representatives of the newsreel companies that were present. Some fifty cars lined up for the parade, led by G. A. Gilmour in his new and beautifully restored 1902 "staggered spoke" Oldsmobile. The parade was an impressive sight. The large crowd of spectators that had gathered along the fence on the outside enjoyed the spectacle as well as the members participating.

The next event, contest #3, the Rapid Turnabout, was won by a 1913 Ford assisted by new member Louie Mahoney at the wheel.

The Ford said Louie was not much help in the "Men's Lament" (#4) because he made it back through a fence. This contest was won by Mrs. Douglas Eastwood who, in the "back seat", had her blindfolded husband and the 1909 Hupmobile under perfect control. Douglas confided afterwards that he didn't have to practice a bit.

In event #5, Tom Mathews Brushed right by all the other contestants to win the "Landing to Mark" contest, in fact, he won in a glide.

The "Back-up Obstacle Race" (#6) was won by W. H. Williams in the 1910 Warren-Detroit in which he demonstrated a very skillful bit of driving.

The last two events had to be cancelled due to a shortage of time because the Grand Parade took up more time than planned earlier in the day. Prizes for events were polishing kits donated by Colyear Motor Sales and Macs-it Co.

Honorable mention is given for cars presenting the best all-around appearance in the following order:

1910 E.M.F. roadster - Fred Buess, Jr.
1917 Pierce Arrow tour. Harold Hansen
1919 Locomobile tour. - Pres. Lindley Bothwell

1912 Havers touring - Lassiter Hoyle
1910 Pope-Hartford tour. Ted Bowers
1911 Pierce Arrow tour.- Cotton Goff
1912 International Harvester truck-Karl Weber
1920 Mercer raceabout - Treas. Herb. Royston

For the oldest car at the meet: 1902 curved dash Oldsmobile (staggered spokes) -G. A. Gilmour.

For the car coming the greatest distance under its own power: 1909 Brush from Rialto, Calif. - Mr. & Mrs. Tom Mathews.

For the best Ladies costume:
1st - Nancy Bowers
2nd - twin outfits of Mesdames Douglas & Warwick Eastwood.

Best Man's Costume
1st - Dr. A. S. Lewerenz
2nd - E. J. Norbury

Best Child's Costume: - Elaine Eastwood.

The judges for contests and for appearance of cars and costumes were Art Twohy, Dr. Shafer, Ray Nelson, and Dr. Lewerenz.

Visiting members at the meet were Mr. and Mrs. E. A. Catlett and son John, of Sacramento, and Mr. and Mrs. Thomas Carstens, Jr., of Tacoma, Wash. Mr. Carstens reports quite a bit of activity in the old car field around Portland and we heard about the Mercer raceabout that got away (ask Jimmy Melton). From the Catletts we heard that an active group around the Bay Area plan a tour in old cars in 1948 to Los Angeles to attend one of the Horseless Carriage Club meets. More power to them, let's hope they do.

The meeting was concluded at 4:30 p.m. and as members prepared to leave, many were heard to say that this was the most enjoyable and successful meets to date due to the fine turnout of cars and members, the very fine hospitality of the General Motors company and the thorough planning by Chairman of the Day, Ray Nelson, and his program committee. There was something doing all the time for everyone and no dull moments or time lags.

Co-workers on all events:
Bernard Rademacher
Chan Hammer
Frank Meir
Eastwood Bros.
Wm. A. Johnson, Jr.
Bob Lingo

Loudspeaker Announcements:
Steadman Smith
Dr. Alfred Lewerenz

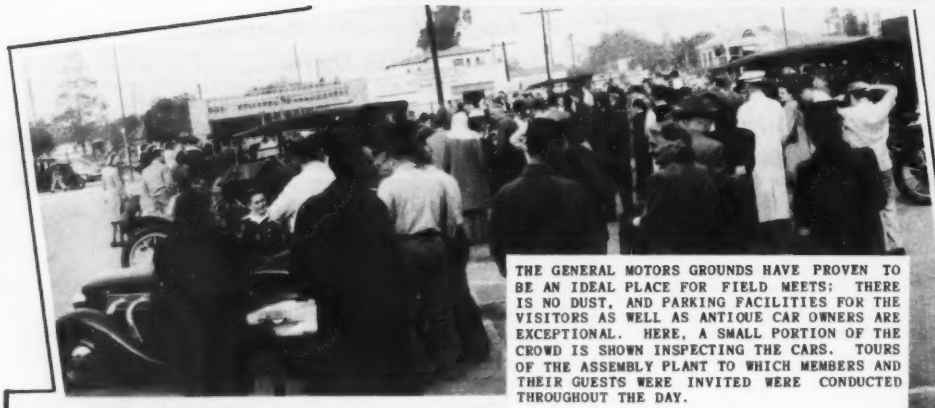
Operation of Loudspeaker or P.A. System:
Lindley F. Bothwell, Jr.

Judges of Events, Costumes, and Cars:
Dr. George Shafer
Art Twohy
Ray Nelson

Cars and Drivers at the meet were:

1902	Oldsmobile runabout	G. A. Gilmour
1906	Success buggy	Albert Brouse
1908	Stoddard-Dayton tour.	Art Austria
1909	Buick roadster	Lee Nelson
1909	Brush runabout	Tom & Ruth Mathews
1909	Reo touring	Raymond Nelson
1910	Hupmobile torpedo rdstr.	Eastwood Bros.
1910	E.M.F. roadster	Fred Buess, Jr.
1910	Warren-Detroit tour.	Wm. Williams
1910	Pope-Hartford tour.	Ted Bowers
1910	Haynes touring	T. C. Archibald
1911	Pierce-Arrow tour.	Cotton Goff
1911	Stearns-Knight "	Lynn H. Kelsey
1912	Havers	Lassiter Hoyle
1912	International truck	Karl Weber
1912	Ford touring	Frank E. Dupuy
1912	Ford touring	W. Dean Moffet
1913	Cadillac coupé	Frank E. Kane
1913	Ford touring	Louis Mahoney
1914	Premier touring	G. A. Gilmour
1914	Chevrolet	L. F. Wells
1916	Oldsmobile 8 rdstr.	C. Standlee Martin
1916	Pierce-Arrow	Raloh T. Davis
1917	Hudson limousine	Dale Aseltine
1917	Buick	E. J. Norbury
1917	Empire roadster	August Behrsin
1917	Pierce-Arrow	Harold M. Hansen
1918	Packard town car	Phillip Hill
1918	Hudson	Owen C. Betry
1918	Chevrolet "490" tour.	Seward E. Cole
1919	Locomobile touring	Lindley F. Bothwell
1920	Mercer raceabout	Herbert Royston
1920	Rolls-Royce	Joe Caskey
1921	Stanley Steam tour.	Bob Jones
1923	Ford sedan	Russell Johnson
1923	Buick touring	Donald Brinkman
1923	Franklin	Albert Brouse
1923	Franklin	M. Goldschen
1923	Franklin	Julius Goldschen
1924	Franklin	Earle W. Jones
1925	Star touring	Earl Dummer
1926	Stutz	Hubert Tuttle
1928	Renault	Ted R. Smith
1930	Cadillac V16 tour.	Phil Brinkerhoff
1931	Austin	H. C. Smith
1931	Pierce-Arrow sedan	Phillip Hill
1932	Franklin	Lloyd Lanterman
1933	Pierce-Arrow	George P. H. Riggs
1934	Duesenberg	C. W. Hammer
1936	Packard	O. J. Smith
1940	Morris "10"	Edw. J. P. Cunningham
1947	M. G.	Phillip Hill
1948	HBJ special (baby)	Harry B. Johnson

GENERAL MOTORS



THE GENERAL MOTORS GROUNDS HAVE PROVEN TO BE AN IDEAL PLACE FOR FIELD MEETS; THERE IS NO DUST, AND PARKING FACILITIES FOR THE VISITORS AS WELL AS ANTIQUE CAR OWNERS ARE EXCEPTIONAL. HERE, A SMALL PORTION OF THE CROWD IS SHOWN INSPECTING THE CARS. TOURS OF THE ASSEMBLY PLANT TO WHICH MEMBERS AND THEIR GUESTS WERE INVITED WERE CONDUCTED THROUGHOUT THE DAY.

A 1918 HUDSON OWNED BY OWEN C. BETRY. DUESENBERG OWNED BY C. W. HAMMER, 1917 ARROW OWNED BY HAROLD M. HANSEN, AND PIERCE-ARROW OWNED BY RALPH T. DAVIS.

A PARADE OF CARS INCLUDING G. A. GILMOUR'S 1902 OLDSMOBILE, THE TOM MATHEW'S 1909 BRUSH, 1911 PIERCE-ARROW OWNED BY COTTON GOFF, AND A 1910 POPE-HARTFORD OWNED BY TED BOWERS.

A GROUP OF MEMBERS STANDING BY TED BOWERS' 1910 POPE-HARTFORD TOURING.

A CLOSE-UP OF HAROLD HANSEN'S 1917 PIERCE-ARROW.

LOOKS AS IF THE[illegible] ASELTINE'S 191[illegible] RICH!

s MEETING NOVEMBER 27th

BETRY. 1934
R. 191 ERCE
, AND 1916
DAVIS.

1920 ROLLS-ROYCE OWNED BY JOE CASKEY. THIS IS AN EXCEPTIONALLY QUIET AND SMOOTH RUNNING ROLLS.

CLOSE-UP OF THE 1911 PIERCE-ARROW OWNED BY COTTON GOFF.

CLUB PRESIDENT LINDLEY BOTHWELL'S 1919 LOCOMOBILE TOURING.

KARL WEBER'S 1912 INTERNATIONAL TRUCK. IN THE REAR IS PHILLIP HILL'S 1918 PACKARD TWIN SIX.

AS IF THE RETOR MIXTURE ON DALE
NE'S 191 LIMOUSINE IS A BIT

A 1914 PREMIER OWNED BY G. A. GILMOUR, AND A 1911 HAVERS-CHICAGO TOURING BELONGING TO LASSITER HOYLE.

Insignia of many long forgotten makes of automobiles are included in Gene Meikel's unique collection of name plates from American and foreign cars.

He's An AUTOMOBILIANIST!

By STEWART MONROE

WHEN Gene Meikel was a youngster pushing a coaster wagon along Greencastle streets, a relative associated with the old Revere Motor Car Company at Logansport gave him a shiny Revere name plate as a decoration for the wagon. The gift started Meikel on a unique hobby—the collection of automobile name plates.

By now Meikel—a veteran of service in Iceland during World War II—displays on neat boards in his Indianapolis apartment insignia from some 500 different kinds of automobiles. The collection includes not only name plates of many long forgotten American-made models but also from cars built in 13 foreign countries. Among them are insignia from the Premier, Monroe, Stutz and most other of the 20 some varieties of motor cars built in Indianapolis at one time or another.

As a member of the Horseless Carriage Club, Meikel corresponds frequently with other name-plate collectors in all parts of the world for the purpose of trading or otherwise acquiring hard-to-find specimens. He has been told by Harry A. Weisbord, one of the country's authorities on automobiliania, that his collection is one of the 10 best in this country. The Hoosier hobbyist has had as many as 2,500 name plates in his possession at one time; many, of course, were duplicates.

THE TECHNICAL bible used by Meikel and other collectors is G. R. Doyle's "The World's Automobiles," published in England. It lists about 4,000 makes of automobiles produced in this and other countries since start of the horseless carriage era. Meikel estimates that since the turn of the century more than 60 different makes of cars and trucks have been built in Indiana, home of the first successful automobile.

Name-plate hobbyists are few in the Midwest, although such collections some time ago became a fad in the East and West. Rare insignia—sometimes found in junk yards or among barn-lot machinery—now and then bring the finder as much as $50.

"But most name plates," Meikel warns, "are just so much scrap metal—unless you find a collector who needs or likes a particular plate." ★ ★ ★

FARMER HAPPY TO PAY $995 FOR 1927 MODEL T

HOUSTON (Tex.) Nov. 4. (U.P.) A 62-year-old farmer today counted out $995 in cash for a 1927 Model T.

R. L. Thacker of San Augustine first noticed the car in a classified advertisement in a Houston newspaper. He said he had been looking for a Model T for three years, "ever since my last one wore out." And his last one was a 1910 job.

"Sure, it was pretty high," Thacker said, "but I wanted a Model T and I had the money. That's all there was to it."

He explained he never drove anything but a Model T in his life.

"I don't go for all these wheel shifts and things like that, and I don't guess I'd know how to drive anything else if I wanted to," he said.

The 1927 Model T had an original cost of $520, F.O.B. Detroit.

POPE CO. GIVEN RECOGNITION AS AUTO PIONEER

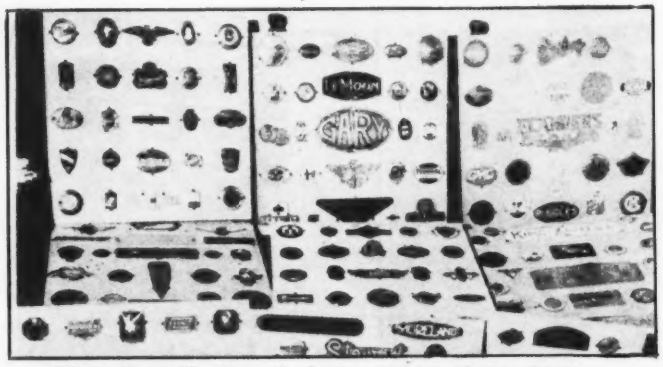
Placques Presented at Recent Jubilee Banquet in Hartford

Westfield, Sept. 20—Recognizing the Pope Mfg. Co. as the birthplace of the automobile industry in 1897, occasioned a golden jubilee banquet at the Bond Hotel in Hartford, Conn., Wednesday in connection with the start of the 1947 Glidden tour through the New England states.

During the evening placques were presented to approximately 20 men or their proxies, including the late Hiram Percy Maxim, Col. Lindley Hubbell, Col. Albert L. Pope, Frank Duryea and Norman R. Clarke. The latter is president of the remaining unit directly descendant from the Pope Mfg. Co., the Westfield Mfg. Co.

The plaque reads as follows:—

"The city of Hartford honors the recipient for the part he played in establishing and developing the United States automobile industry."



Meikel's collection includes name plates from most of the automobiles once built in Indiana.

The Horseless Fiacre

By LUCY FREEMAN

WHETHER it be a matter for cheers or complaints, the taxicab industry began in New York forty years ago this month. Harry N. Allen got angry at the driver of a horse-drawn hansom cab because he dared to charge $5 for a haul of three-quarters of a mile, and thus it all started.

One evening early in 1907, when Mr. Allen, now gray-haired, was 30 years old, he dined with a young lady at Rector's, on Broadway at Forty-fourth Street. Afterwards he hailed a hansom and they drove to Fifty-eighth Street.

"Five dollars," said the driver politely.

Mr. Allen paid, but his thoughts were not polite.

"I got to brooding over this nighthawk," he recalled the other day. "I made up my mind to start a service in New York and charge so much per mile."

He decided to experiment with motor cars, derided by the street corner crowd as "smoke-wagons." The cars manufactured in this country were not right in his estimation, so he went to France to scout out one that would be small, reliable, economical to operate and command a prospective fare's confidence.

Once in France he found the venture turning international indeed. Lazare Weiller, an industrialist, offered to underwrite the business for $1,000,000 and, in London, Davison Dalziell, railroad operator, said he would match the million if Mr. Allen would raise a third million in America. Thus money from France and England made up two-thirds of the capital that started New York on its way to today's great fleets of taxicabs.

WHEN he returned, many of Mr. Allen's friends, including "Diamond Jim" Brady and John W. "Bet-a-Million" Gates, began calling him crazy. He went to Allan Lexow, president of the New York Cab Company, which operated the hansoms. He explained the meter plan, only to hear Mr. Lexow retort angrily, "I have 4,900 customers and not one will ride in a cab with a meter."

"I guess he thought it would be too commercial," Mr. Allen explained.

William Randolph Hearst, the publisher, was one of those who approved the idea. He told young Allen, "Don't pay any attention to those aristocrats. They'll all ride in your cabs sooner or later." A city official predicted, "You'll live to see all New York traffic motorized, young man."

Mr. Allen's ace in the hole was Wall Street. His father, Charles C. Allen, was a member of the Stock Exchange. He himself had been a partner in a Stock Exchange house. The bankers helped him to get together his $1,000,000, and the politicians, including "Big Tim" Sullivan, "Little Tim" Sullivan and Police Commissioner Thomas Hamilton, promised him "moral" support for the pioneer New York Taxicab Company.

Mr. Allen also coined the word "taxicab," which he had copyrighted in Washington.

"The 'cab' part was a natural," he explained. "The 'taxi' came from a French company that made meters for horse cabs, called 'taximetres.' That means a meter that arranges for the tax. I merely combined the two."

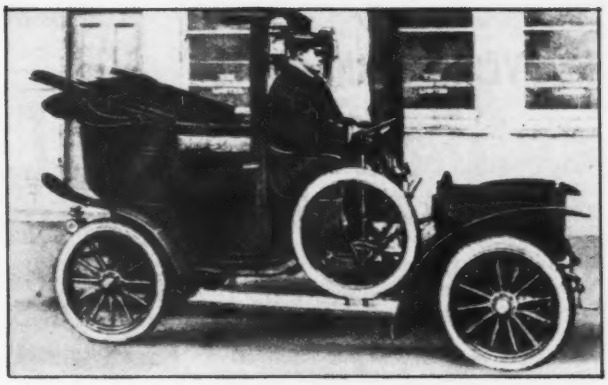
On Oct. 1, 1907, pedestrians rubbed their eyes in wonder as a fleet of sixty-five shiny red taxicabs hit the streets of New York. The following day THE NEW YORK TIMES printed a news item which read:

"The new taximeter motor cabs, which promise New Yorkers low-priced cab service, made their initial trips for the general public yesterday. The first public trial of the new cabs was made Monday night by dinner guests of the Plaza Hotel, who were treated to free rides by Harry N. Allen, president of the new Taxicab company.

"The new cabs are attractive-looking vehicles, 16-horsepower, four-cylinder Darracq cars of the landaulet type made in France. The driver is in uniform not unlike that of the West Point cadet.

"The tariff registered on the taximeter for from one to four persons will be as follows: First half mile, or fraction thereof, 30 cents; each quarter mile thereafter, 10 cents; each six minutes of waiting, 10 cents."

THE enthusiastic owner, who soon had 700 cabs on the streets, also obtained the rights to put his cabs in front of every hotel in the city (presumably the politicians helped), as well as the railroad stations and docks. He promised them all a percentage of the take.



"Small, reliable, economical" New York taxi—A 1907 model.

The hansom cab people decided they could not accept this invasion without a fight. They started warfare. Horse-drawn cabs tried to block the newcomers, make them swerve into curbs and gutters. But the machine triumphed and Mr. Allen's company survived.

At the end of the first year he gave his drivers a dinner, presenting a gold watch to each one who had been with him from the start and announcing that he was setting up a pension fund as a reward for their faithfulness. Mr. Allen was notified at his home two hours after the party that his drivers had called a strike, demanding that he allow them to organize.

"In those days, unlike today, you could fight a strike," he says. "It took us seven weeks, during which we were bombed and shot at. Many of the men who drove my cars were college boys looking for excitement and they got it.

AFTER the strike was settled, he had time to engage in such schemes as increasing patronage by issuing for $20 a book of tickets good for $25 worth of rides. He recalled that "Diamond Jim" Brady bought $500 worth at a time. When Mr. Allen asked him what he did with all the tickets he replied, "I give them to the girls of course." "Taxi" Allen was true to his taxicabs only two years, after which he became an importer of costly cars. He retired in 1930.

As a former employer, Mr. Allen says philosophically that he wouldn't want to be in the taxicab business today. As a rider, he is quick to praise the modern cab driver as efficient and courteous.

He thinks the industry has come a long way. "Why, it wasn't so long ago that cabs weren't allowed to cruise and pick up pedestrians," he says. "People could only get in at licensed places like hotels. Think of that!"

L. A. SIDESHOW

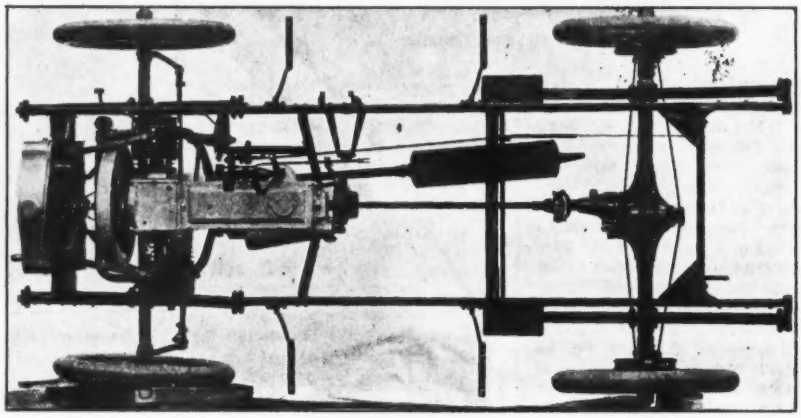
"The only place I can think of, Buddy, where you might find that part, is along the edge of El Camino Real somewhere!"

NEW VEHICLES AND PARTS

1907 Maxwell Two Cylinder Models.

The 1907 four cylinder Maxwell car was described in our issue of August 8, 1906. In addition to this new model the Maxwell-Briscoe Motor Company of Tarrytown, N. Y., are marketing a light touring car, known as Model "HB," which is very slightly altered from last year's design, and also two runabout models, known as "RS" and "RL," these having different bodies on the same type of chassis. The distinguishing features of the Maxwell, such as thermo-siphon circulation, pressed metal bodies and the unit arrangements of the engine and transmission on a three point suspension, have been retained.

The specifications of the light touring car shown in the photo are as follows: The motor is of the two cylinder opposed type of 5 inch bore and 5 inch stroke, and is rated at 16-20 horse power at 800 r. p. m. The water jackets are integral with the cylinders; all the valves are mechanically operated. This engine, as in all the Maxwell models, is under the hood at the front. A sliding gear transmission of the progressive type, which admits of three forward and one reverse, being direct on the high, is enclosed in an oiltight case, together with a metal to metal multiple disc clutch. This case is integral with the engine case, thus forming a unit supported on a three point suspension. The drive is by means of a Cardan shaft provided with two oil retaining universal joints. The same carburetor of their own make as previously used is employed. Both a compression oiler feeding direct to the cylinders and splash lubrication are used. The ignition is by jump spark from dry cells. The wheel base is 86 inches and the tread standard. The tires are 30 inches by 3½ inches and the pressed metal body, which is somewhat more luxurious than last year and upholstered in black leather, has a seating capacity of five persons.

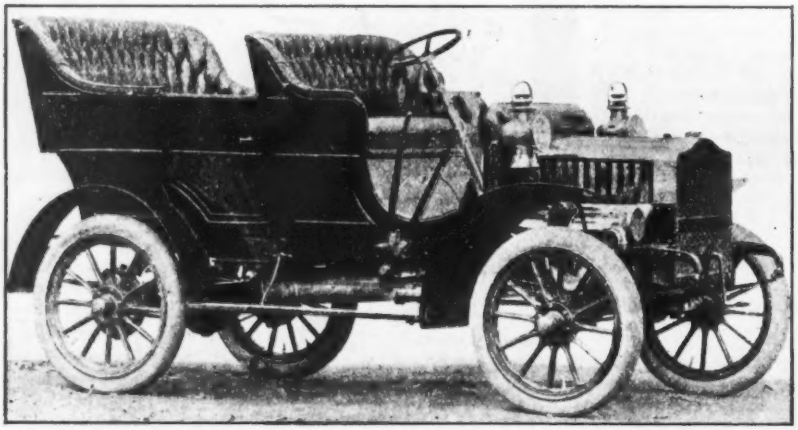


PLAN OF MODEL HB CHASSIS.

The changes in this model are very few, the chief one being in connection with the brake construction, both sets of which now operate direct on the rear hubs. They are of the internal expanding band type, metal to metal and of the external double acting contracting band type. The latter are lined with cross grained hickory blocks. It is claimed by the company that after many experiments on the use of these wood blocks the results were so satisfactory that they have incorporated them in their regular design. They also state that the wearing qualities of these blocks are far superior to bronze when used under the same conditions. A plan view of the chassis of this model is shown. This illustrates the position of the engine and transmission in the frame, shows the arrangement of the brakes, shaft drive and location of the radiator, piping, muffler, etc. The rear of the dash, the brake and control levers are shown in the next photo. The inner foot pedal operates the contracting band brake on the rear hubs, while the lever next the steering post is for the clutch. The small foot lever to the right of the steering column controls the throttle, and when released gives a slow setting. On the steering column just below the wheel is the spark control lever. Of the two side hand latch levers, the outer one controls the emergency brake, while the inner operates the change speed gears. The double coil and the sight feeds are also shown in position on the dash.

A photograph is also shown of a plan view of the Maxwell two cylinder opposed engine. This illustrates the unit construction and the change speed gears; also the neat interlocking device which prevents stripping of the gears, as described in our issue of August 8, this device being the same as that used on the four cylinder car. The multiple disc clutch is also shown, and is arranged so that it will quickly disengage when released. It is entirely inside the case and runs in a bath of oil.

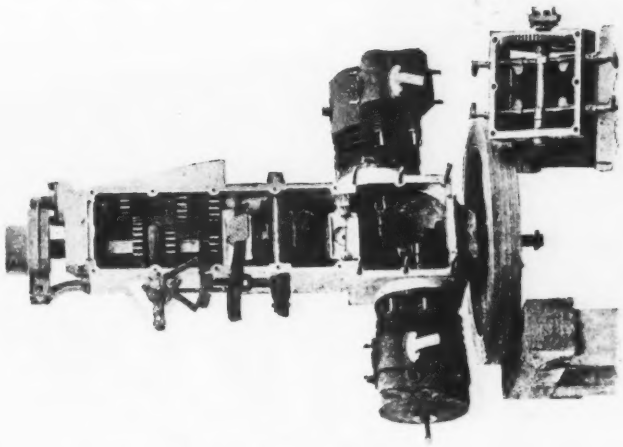
The runabout chassis has this year been fitted with two separate bodies, the one known as Model "RL" having practically the same body as last year, while the body on Model "RS," as illustrated in the accompanying photograph, is new. This body has the divided seat and curved turtle back which have recently become so popular. There have also been several important detail changes in the runabout. The bore of the cylinders has been increased one-half inch, so that the engine is now 4½ inch bore by 4 inch stroke, and is rated as 12 horse power at 1,000 r. p. m. The planetary transmission, giving two speeds forward and one reverse, has its bands fitted with the same style of hickory blocks as used on the external brakes. They claim that by means of these blocks the speeds are taken up much more gradually than with the metal to metal bands. The compression in the motor has also been lowered, which it is said results in a much smoother running engine. The motor and transmission, as in the larger model, forms a unit and is suspended on three points. Force feed lubrication to the cylinders from an oil reservoir under the hood, by way of sight feeds on the dash, is used in conjunction with the splash system. All the valves are mechanically operated and are made with separate cast iron heads mounted on steel stems. The push rods



MODEL HB MAXWELL TOURING CAR.

are of steel hardened and ground; these are mounted in the crank case cover so that they can be removed, together with the large half time gear, as shown in the photograph of the engine; this facilitates accessibility. The crank shaft is made of special steel subjected to a toughening process, and the connecting rods are provided with adjustments at both ends. The wrist pins are of steel hardened and ground. The engine bearing nearest the flywheel is of special phosphor bronze and the rear bearing is a bronze sleeve babbitt lined. The manufacturers state that the transmission gears are of chrome nickel steel cut and hardened by Brown & Sharpe. These gears run in a bath of oil, which is maintained by one of the feed pipes of the oiling system. The engines are all water cooled, the cylinders being jacketed the entire length of the stroke. The honeycombed type of cooler, such as previously used, has been retained, and the circulation is maintained by thermo-siphon action, no pump of any kind being used. The drive is by bevel gear and pinion, both of which are of special steel and of Brown & Sharpe manufacture. The rear axle is of the floating type, Hyatt roller bearings being used throughout. The bearing of the driving pinion is bronze bushed, and the shaft is hardened and ground. A blank roller the same size as the driving pinion is fitted against the driving gear on the side opposite the pinion. This takes up the thrust of the pinion and holds the bevel gear in proper mesh with it. The rear axle is packed with grease, and a removable plug is provided for the introduction of more lubricant when necessary. The gear reduction on the direct drive is 3½ to 1. But one set of brakes is fitted to the small models and these are of the external contracting type provided with hickory blocks, as previously mentioned. In these light models the transmission, being of the planetary type, can be used in case of necessity as an additional brake. The frames of all models are of pressed steel, hot riveted and supported upon four semi-elliptic springs. The bodies are stamped so that the raised beads and ornamentation are part of the metal, and not riveted on. The wheel base is 72 inches, and the tread standard. The seating capacity of each is two persons. The runabout Model "RL" is finished in standard green; while the new body of Model "RS" is finished in red

DASH AND CONTROL LEVERS, MAXWELL MODEL HB.



1907 MAXWELL TWO CYLINDER ENGINE AND TRANSMISSION.

Load Tests by Screw Propeller.

READING, Pa., August 31.

Editor HORSELESS AGE:

The description of the Renard fan dynamometer in your issue of August 26 leads us to believe a short description of our device for working out motors may be interesting.

We used and have been using for a number of years a screw propeller mounted in a barrel of water. This does not take up as much room as an air fan and makes a very satisfactory load for working out a motor. We know by brake tests about what speed is required for a given horse power, and in this way know whether our motors are working up to full power or not without the trouble of a brake test. The power is absorbed by the water, which gets hot enough to boil and needs replenishing once in a while. This, however, gives little trouble. CHARLES E. DURYEA.

End of the Solid Tire Pool.

The pool which has existed during the past twelve months in solid and cushion rubber tires expired on September 1, as the result of a decision reached at a meeting of manufacturers held in New York early in the past month. The arrangement which has thus terminated had reference to the maintenance of prices, and was guaranteed by the parties to it giving bonds, while the secretary of the pool had authority to examine the books of the various factories. As an aid to carrying out this agreement, there was an allotment of production among the factories; or, rather, those firms turning out more than their allotment contributed to a fund which was divided among firms not receiving their share of orders.

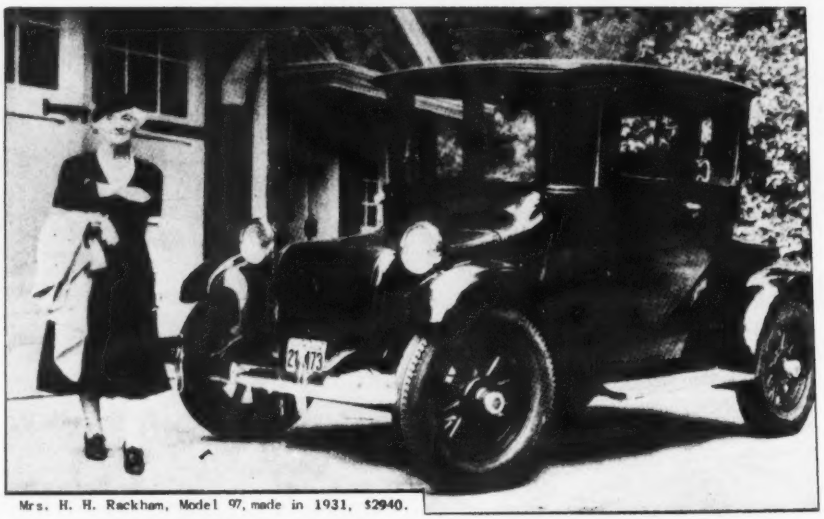
It is understood that the manufacturers' agreement in respect to "clincher" pneumatic, which has existed for a year past, remains in force.—*India Rubber World.*

NEW MAXWELL RUNABOUT.

Making Electric Cars

In Detroit's Smallest Auto Factory

A. F. Renz, head of the Detroit Electrical Vehicle Mfg. Co., believes that the electric automobile may stage a real comeback—in 20 to 50 years, due to depletion of gasoline reserves and increased development of cheap electricity.



Mrs. H. H. Rackham, Model 97, made in 1931, $2940.

Electric automobiles, you may be surprised to learn, are still being made in Detroit. But where gasoline cars are turned out by the thousands, Detroit's smallest automobile factory considers 10 electric cars a good year's work. This "showcase" type, popular 20 years ago, is still in demand.

By Russell Gore

REMEMBER the electric automobiles that once were the symbols of automotive luxury?

Well, they're still being made—in Detroit's smallest automobile factory.

In the heart of a city that can turn out thousands of cars in a day, this vest pocket plant operated by A. F. Renz at 731 Tenth street produces as many as 10 cars in a year—that is, a boom year.

Some are duplicates of the "floating showcases"—so called because of their great expanse of plate-glass—in which electric power fought its losing fight with gasoline some 20 years ago. Others are built in modern models to simulate a gas car.

But unless they are geared to travel more than 30 miles an hour, these latter also are steered by lever instead of wheel. Electrics can be made to go as fast as the owner desires. However, not many buy a battery-driven machine for speed. But if they do, a wheel is substituted for the lever.

In Detroit are 10 electrics. In the world at large (but mostly in America) are some 500 of which the Detroit Electric Vehicle Manufacturing Company has records. It is estimated that there may be a thousand or so more gathering dust in garages.

The motor of an electric is sealed and needs to be lubricated only once every four or five years. However, the car will travel only from 60 to 85 miles on one battery charge. Recharging takes from six to eight hours. With care, batteries will last 3 to 20 years; replacement cost is $325 to $450. There is no battery guarantee if the car is geared to run more than 30 miles an hour.

Renz says operation cost of an electric is about one cent a mile; one never stalls or even falters. With the car imbedded in mud, sand or snow, it does not race the wheels, but pulls itself out, slowly and steadily, if it has the slightest traction. From a standing start, he says, the electric will beat most any gas vehicle to the getaway.

Renz says he recently turned down an order from Leftist Spain for 1,000 cars because payment could not be guaranteed. Gas, when it can be obtained at all, runs as high is $5 a gallon in Spain and electricity is cheap.

Mrs. C. F. Bielman is one of 10 electric car owners in Detroit. Her car, shown below, resembles a gasoline car, with batteries under the hood. Because it is geared to run not more than 30 miles an hour, she uses (above) a lever for steering instead of a wheel.

Mrs. C. F. Bielman, Model 09, made in 1930.

—Photos by J. Herrmann and H. Burgert, News Staff

Renz and a workman inspect the power plant of an electric. Probably most distinguished owner of this type of car is the Maharajah of Mysore, who paid more than $5,000 for one with gold handles, gold interior hardware, upholstery of purple and gold and even a gold horn. It takes about 90 days to turn out a standard job, which costs from $2,500 to $3,500.

FORD CARS FOR 1910
Every car a duplicate of the New York-Seattle winner

If you are looking for "sensations" we are sorry, for we have none to offer. The "sensations" of today are the twelve and twenty-four months' late imitations of the Ford successes of the past. Our 1010 policy will be similar to that of 1909 and previous years. There will be only one type of car made in the Ford factory, and all the Ford energy, ability, and manufacturing facilities will be focused on that one model. Specialization is the secret of manufacturing perfection.

The 1910 Ford is an improved and refined 1909 Model "T" Ford. A year's service and ten thousand owners have proven the car to be a good car and suggested improvements that have been added. It is an exact duplicate of the car that won the New-York Seattle race. The car that won not only finished first but was a winner all the way across. The same car is now traveling back over a different route and has already added 3000 miles to its credit.

Remember the Model "T" is a 4 cyl., 20 h. p., 1200 lb. 5 passenger Touring Car (or other style body as desired), with 100″ wheel base and 30″ wheels. Is made throughout of Vanadium steel specially heat treated. The motor cylinders are cast in one block and the cylinder head is removable. Unit power plant, 3 pt. suspension, I-beam front axle, all mark it high grade. And the magneto is built right in the engine instead of being an afterthought at an added price.

We are delivering 1910 cars now. Delivered 496 the first week in August and will continue right along at the rate of 450 or more every week. As an agency for a pretty picture attractively tagged offers little profit and riding around in such no enjoyment, it would seem the wiser plan to settle the matter at once by closing up with Ford instead of chasing the will o' the wisp or tying to a designer's dreams. Instead of planning, Ford is producing and Ford deliveries for 1910 are sure.

Commencing October 1st, prices will include top, wind shield, speedometer, gas lamps and generator, 3 oil lamps and horn on touring car at $950.00, tourabout at $950.00, and roadster at $900.00. For oil lamps and horn only deduct $75.00. The coupe at $1,050.00, landaulet at $1,100.00, and town car at $1,200.00, includes 3 oil lamps and horn. All cars equipped with magneto an integral part of engine and included in the price.

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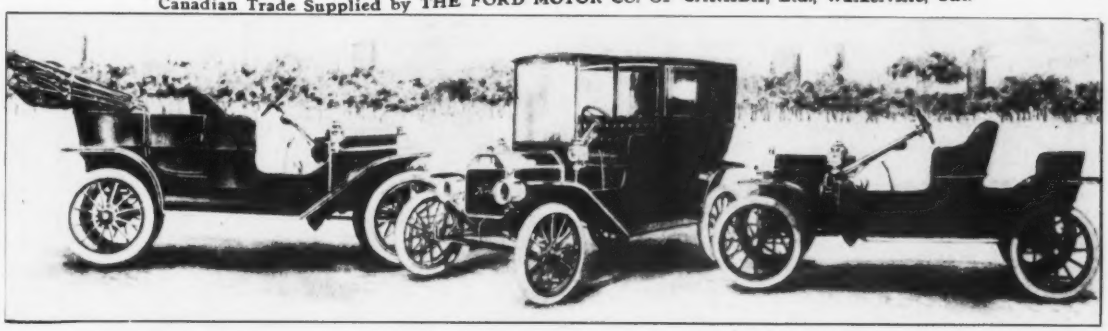
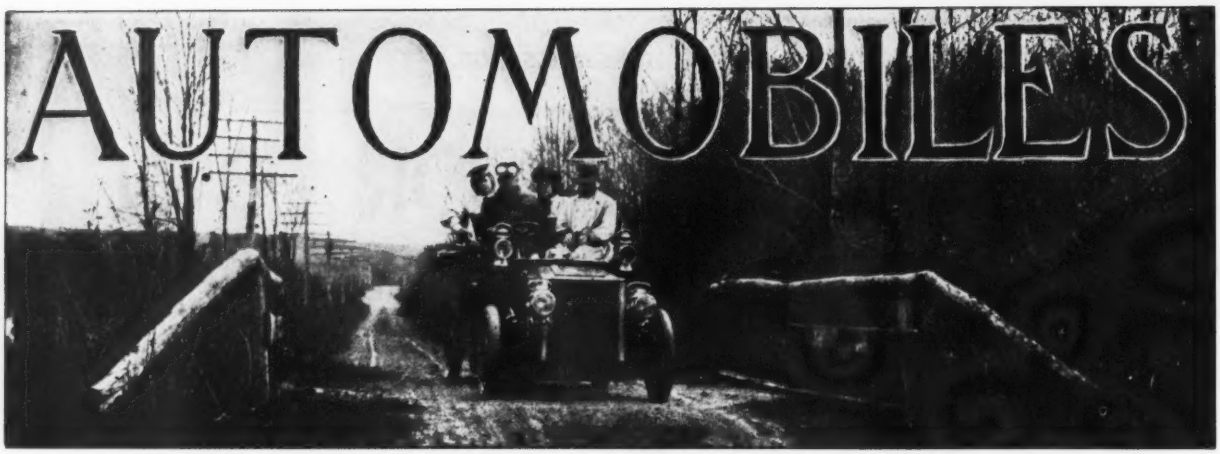


The above illustration shows three of the six types of bodies supplied on the Model "T" Chasis.



HOW I REBUILT MY AUTO

THE majority of the automobiles made three or four years ago had a short wheel-base, a sawed-off front, and a rear entrance. This gave the machine an excessive swaying and vibration on rough roads and an inconvenient rear door of entrance. My own car was a 1903 model, but had an excellent, two-cylinder engine which had done over 8,000 miles of all sorts of travel. Barring its three ancient defects of short wheel-base, cut-off front, and rear entrance, it promised good service for thousands of additional miles.

In planning how to modernize the car I ran across the advertisement of an outfit which would remedy the wheel-base and the appearance of the front of the machine. The new equipment was exceedingly simple and its adjustment was a matter of only a few hours. It consisted of a pair of lengthening irons for the main frame, a dash-board, and a sheet-iron, brass-trimmed hood. The irons bolted to the main frame and allowed the forward wheels to be advanced ten inches, making a wheel-base of eighty-two inches. Then the lengthening of the pipe connection allowed the radiator to slip forward to the front end of the frame.

The top corner of the front of the old body was sawed off, leaving its side frames at the bottom projecting in two arms. The dash-board was fastened in place and the hood was then slipped over the arms and fastened to them and to the dash-board with screws. Bringing the front fenders forward ten inches completed the change. Not a new hole had to be drilled, for the parts exactly fitted in their new positions. The rear entrance, having nothing to do with the running qualities of the car, was not disturbed. Even this remaining defect could be remedied, but the trouble and expense seem hardly justifiable for the slight improvement.

A trial of the car revealed such surprising improvement in the ease of its running that I determined to install other changes. A floor was placed inside of the hood and a new copper gasoline tank, holding eight gallons, was placed on the hinder half. This allowed the old tank to be removed from beneath the seat so that all parts of the engine became readily accessible. The sheet-iron cover of the hood rattled tremendously till I drilled quarter-inch holes all round the flange and threaded them with rawhide string. This prevented the vibration of the cover and completely overcame the noise.

A tool box, 14 x 12 x 21 in., was built of plain wood to occupy the forward part of the hood. This tool box has proved to be exceedingly commodious and convenient. It enables the driver to get a needed tool without disturbing his guests.

The steering gear was of the direct type and was too sensitive for the comfort and peace of mind of the driver. Moreover it was liable to escape from control in running over rough roads. So a compact irreversible steering apparatus was purchased and installed. It is approximately a sphere of about six inches diameter and is geared down three to one. To install it cost a little more than its purchase price, for an attaching ring with arms has to be forged and fitted to the old holes in the frame.

My car had another defect, which was common to the older machines, in that its 4 x 4 cylinders gave insufficient power. I argued that the engine would safely stand an increased speed. I therefore took off the old 32-tooth rear sprocket and inserted one with forty teeth. This augmented the power 25 per cent., but the real increase is much more, for the engine makes 25 per cent. more revolutions for a given speed or distance and so the increase of power is the square of 1.25 or 1.5. The car actually seems to have 50 per cent. more power and carrying capacity than before the change of sprockets.

The modern style demands a runabout type. I succumbed to the accepted form for just two days, but, missing the capacity of the tonneau to carry the luggage and my friends, I lost no time in re-attaching the rear seat. I felt mean at not being able to ask my less fortunate friends out with me, for half the pleasure of automobiling is the company of congenial and appreciative friends.

Now as to the results of the change, I am disappointed in only one respect. My expectations of buying a new car are deferred. In spite of its rear door the car certainly has an up-to-date appearance. Its riding qualities are fully equal to those of a 1907 car of its class, and its power is amply sufficient to carry it up hills beside its younger cousins. Its speed is somewhat reduced on hard roads, but in sand and hills the engine runs with a smoothness and steadiness which more than compensates for its loss of racing qualities. I can still keep up a speed of fifteen to twenty miles an hour with a full load, but have a peaceful assurance of an inability to break the law by exceeding the speed limit.

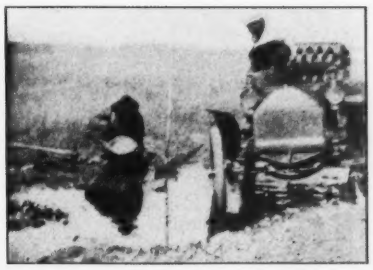
To the driver the new steering gear is a great boon. With the old one a slight turn of the wheel meant a big swerve to the car, and an obstruction to one wheel required the strength of both arms to keep the car in the road. Now the wheels cannot swerve unless the driver turns the steering wheel, and the three-to-one reduction in power enables a lady to steer comfortably with one hand. Of course, neither this gear nor any other will eliminate that bane of the autoist—skidding.

The cost of the changes was about as follows: lengthening outfit, $45; new gasoline tank, $5; new rear sprocket, $10; steering gear, $30; total $90.

FRANK OVERTON.

The 1903 model before the changes were made. Note the short wheel-base and lack of hood. The steering gear, too, was unsatisfactory

The same car transformed into a modern runabout, with a tonneau that can be replaced in ten minutes. Remodeling cost less than $100



Old-time miner panning for gold. One of the sights of a California tour

WHAT CAR SHALL I BUY?

WITH the number of different makes of automobiles now on the market, it certainly has become a task for a prospective buyer to make a choice. It is especially so with the man of moderate means who wants to buy one for business use and expects to care for it himself. The advertisements, and agents of the different makes, all tell of perfect scores and victories in different contests, until the buyer, bewildered, believes them all good and buys what he thinks is the most popular that comes nearest the size of his pocketbook.

Speaking only as a user after seven years' experience, and not as an expert or authority on the subject, I look at the situation in the light that the perfect car is not yet built and that the old user, as a general rule, in trying to get something better, buys a new make of car each season, endeavoring to find the perfect car. This has been my case, at least, until last season, when I ran across a car that appears nearer perfect than any other car I have seen.

In my seven years' use of cars I have given six different makes a thorough trial and ran them all thousands of miles. I commenced with the single cylinder and have gradually kept step with the improvements, running up to the four-cylinder car. Manufacturers have gradually increased their cylinders, since I owned my first car, until four and six seem all the rage now.

In fact, I believe that if six-cylinder runabout cars were built at the popular price of some of the single and two-cylinder cars, the average buyer — the man of moderate means — would buy the six-cylinder car instead of the one- and two-cylinder kind. He would do this regardless of the fact that he is buying more to care for than he really needs. In my opinion it is like buying four or six little ponies to do the work of one or two big, stout horses. There is, no doubt, more grace and more style accompanying the four and six little ponies, but they will be found to require just about four or six times more trouble to care for, also more expense to feed.

Many a man might well afford the price of some of the popular cars to-day, who cannot afford to pay for the operating and maintenance expense. The first cost of an automobile must not be thought the greatest consideration of its ownership, especially in buying the popular four- and six-cylinder touring cars.

The sealed-bonnet contests certainly prove that motor cars are capable of great endurance, if properly handled, but it must be taken into consideration that the cars entered in these contests are unusually well tested beforehand, and the majority of them are in the hands of well-paid operators from the factory.

For a practical, busy man's car, I do not advocate more than one or two cylinders. There is a craze for the other cars just now, but they have drawbacks for the man who must economize. Of course, in very high-powered engines, it is necessary to add cylinders, though even then it has not been proved that it is necessary to go beyond four. In the recent Glidden contest two-cylinder cars finished with perfect scores, doing all that the four- and six-cylinder cars were required to do.

The four- and six-cylinder advocates talk of their even torque, their extra number of explosions to the revolution, the lack of vibration with the consequent reduction of strain on all parts, the flexibility of control without changing speed, etc. But they say nothing about adding more complication, more weight, more wheel-base, extravagance in fuel and oil, and wear of tires. There is a fascination in running a four- or a six-cylinder car that is not found in the one- or two-cylinder car, and to the man of means I would certainly say "own one."

As to the six-cylinder cars, they showed more vibration in the English trials and have yet to excel the four-cylinder cars in racing. Taking for instance the lesson learned from the last Grand Prix in France and the Kaiser's Cup race in Germany, it was a four-cylinder car, driven by Nazzaro, that won both of the events. There were four eight-cylinder cars and one six-cylinder car in this contest and none of them gained any honors.

Payne toll. The paint and cushions of the tonneau protected against sun and rain

But returning to the car for the busy man — the man not believing in conventional ideas and desiring a car for business only—I would advise buying a one- or two-cylinder four-cycle car. There are several reliable models of these cars on the market, and with proper handling they will give satisfaction. For knocking about town, where fast speed is not allowed, a good single-cylinder car is all one needs, and will cost less for fuel, oil and plugs than a car with more cylinders. Every cylinder you get adds more fuel and more oil. It must be remembered that every cylinder of the four-cycle type adds one more plug to replace occasionally, two more valves to care for, two more cams, two more springs, and one more connecting rod with its two bearings to adjust occasionally.

If one's business requires a more powerful car, it can easily be found in the two-cylinder class. A well-built two-cylinder car will give little more trouble than one cylinder, but it will be more expensive in fuel, oil and plugs.

Where the fascination of the four-cylinder car appeals to the buyer so strongly that he can hardly resist the temptation to buy one, I would advise him to buy a two-cylinder, two-cycle motor car. A car of this kind will have the same number of impulses as the four-cylinder four-cycle, with less than half the parts and complications.

Where a truss rod caught and broke. A fair sample of the roads among the mines

Inquiring the way on the old Bennett Ranch Road, Mariposa County, Cal.

I have now been using one of these cars for over eighteen months and I must say that I prefer it to the four-cycle cars for the simple reason that it is easier to take care of and has all the good qualities of the four-cylinder motor.

Those buying a two-cycle car, however, should get one that has been on the market some time, as all manufacturers cannot build as good two-cycle as four-cycle engines.

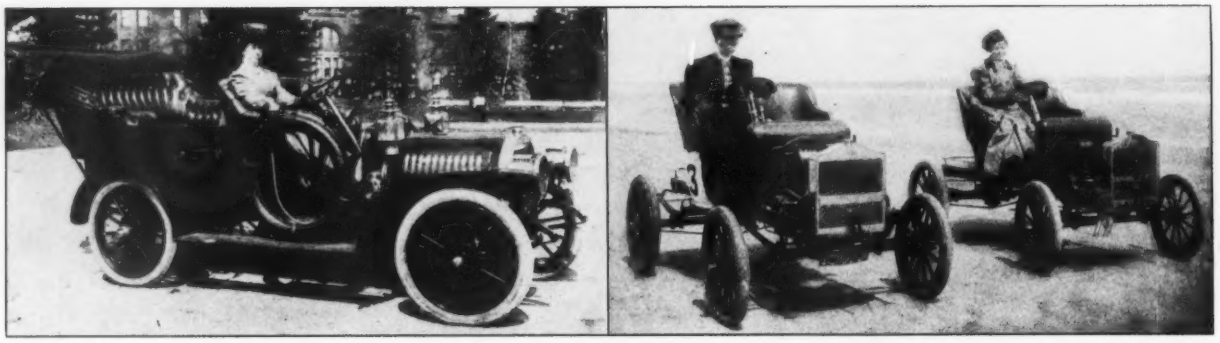
Though the two-cycle motor car is ignored by the majority, it must be admitted that it is fast coming to the front and looms up large in the background of the motor-car industry. The principal reason that many of the large manufacturies are building motor cars upon the four-cycle principle is that motor-car building is a branch of industry and not a laboratory of research. They can build a good four-cycle motor; in fact, anyone with skill and knowledge of steam-engine design can design a four-cycle motor, but it requires experience dearly bought by expensive experimenting to design a two-cycle motor, especially for high speed work, such as is required for motor-car use. It is no wonder that manufacturers building a reliable four-cycle car, which there is a demand for, do not wish to turn their attention to the two-cycle, even if they should see great possibilities in it.

The adaptability of the two-cycle motor for automobile use may best be explained by the fact that the frequency of the impulses is double that of the four-cycle, cylinder for cylinder, making the torque more constant than on the four-cycle. For this reason the motor will hold its rotative effect at low speed with less fly-wheel, and will answer the throttle more promptly under load. The absence of valves, gears and cams make the two-cycle less likely to get out of repair than the four-cycle — more nearly fool-proof. The few parts make the the two-cycle motor much lighter.

Some may claim the following disadvantages for the two-cycle: Inability to operate at high speed; liability of explosion in the crank case; leakage in the crank case bearings; poor mixture because of its passing through the crank case; hard to start; liability of starting backward and overheating. Though I am reminded of these faults very often by questions from my friends and strangers, I have not yet been troubled with any of them.

The accompanying photographs, taken on my various trips about California and neighboring states, will show what hard usage my own car got. An account of what it cost me to run it will be found on page 338. J. C. CUNNINGHAM.

Where the carburetter took in water and all hands had to get out and push



Both in city driving and in the more dangerous sport of racing, women have repeatedly proved themselves equal to men

WHY THERE ARE SO FEW WOMEN AUTOMOBILISTS

By MRS. ANDREW CUNEO

THERE must be some good reason why so few women drive automobiles. It may partially be accounted for by the fact that the automobile manufacturers are not building cars that are especially adapted to women's use; then, too, considerable strength is required to crank a car and to attend to tire troubles; the unpleasant attitude of other drivers may have something to do with it, also the difficulty that most women experience in understanding machinery, and their natural disinclination to do any work that will soil hands or clothing. Perhaps the principal reason is that they lack confidence in their ability to drive a car.

In spite of all these things I have owned and driven seven cars. I began with the first one in 1902 and my total mileage is about 80,000 miles. I have had one or two mishaps but nothing very serious. The car I have now I take entire care of myself and think its condition will compare favorably with any cars running on the road. I find automobile drivers, as well as others, to be extremely courteous as a rule, although not necessarily surrendering their rights on the road. On the occasions when I have required help I have always found some one willing to lend a hand, and I feel that if women could realize the exhilaration that comes from being able to handle a 60-horse-power touring car, the sight of a woman driver would be anything but a novelty.

The point of this article is not to show that there are no obstacles in the way of a woman's driving a car, but rather that these obstacles are not insurmountable, and as a matter of fact are much more imaginary than real, and that there is no good reason why thousands of women should sit quietly in the tonneau and let the men have the keenest enjoyment of the greatest sport of to-day.

Not every woman is competent to drive an automobile; neither is every man, for that matter. If she is timid or afraid or of an excitable temperament, then she is not to be trusted with the lives of those she may have with her, and she has no moral right to drive a car. To be a good driver she should be self-reliant and quick to act, keeping her nerves as well as the machine under absolute control every second she is at the wheel or steering lever.

To gain the best results and to learn the first rudiments of good driving, an electric car is the best to begin with. In it she may learn to steer, to give the proper power as it may be needed, and to become familiar with the rules of the road and the many city traffic laws; she must learn not to drive all over the road, making every one else turn out for her. After having mastered the elementals she should try a small gasolene runabout in which to learn the fundamental principles of an internal combustion engine. She should, if possible, visit the factory of the car she

A woman with a mechanical turn of mind and a well equipped workshop can take entire care of an automobile

A compressed-air tank and a blanket spread on the ground robs tire inflation of all its terror

Mrs. Cuneo has driven automobiles over 80,000 miles with every possible kind of road conditions and with no serious mishaps

is going to buy and watch the progress of manufacture from beginning to end.

At the New York automobile show I once overheard a woman who came along with a sample of cloth in her hand ask how soon she could have one of those cars painted that color. She didn't care what make it was or what power or anything, only the color and upholstery must match her new suit. That woman would probably not be a success as a driver.

When a woman masters the small car, the larger touring car of greater power is a much easier problem, although not every woman who has the ability to drive a car may have the strength to crank it. Electric and steam cars may of course be started without cranking, and there are some good self-starting devices for gasolene motors which any car designed for a woman should have.

I have often been asked what in the world a woman would do with a blow-out or punctured tire. From my own experience it isn't such a difficult task to jack the car up, spread a piece of rubber sheeting two yards square or a lap-robe on the ground, and then stoop down and get to work. It isn't at all necessary to get one's clothes covered with dust and dirt. With a little practice and by using a compressed-air tank to inflate the tire, a woman can change a tube or tire almost as well as a man.

In city driving more than in the country, women occasionally encounter an unpleasant attitude on the part of inconsiderate drivers. Cab-drivers and truckmen especially seem to take delight in annoying a woman and trying her nerve and patience, but the courtesies extended by the many more than compensate for the disagreeable attitude of the few.

The difficulty in understanding machinery, and the fear that something might get out of order, keep many women from driving alone. Even if a woman doesn't understand a car as thoroughly as she might, there are so many automobiles on the roads to-day and so many garages all over the country that there is always someone ready and willing to be of assistance in case of trouble. I believe that after a woman has felt the real pleasure of driving an automobile, realizing the power she is able to control, she will learn to love her car almost as a living being and will only with the greatest reluctance ever take any seat except the one at the wheel.

A great many people claim that a woman will lose her head in case of emergency or accident, but the facts do not seem to bear out the contention.

Caution should be the great watchword of all motor drivers, and in that respect I believe women have the advantage of men. The spirit of recklessness that often comes when the potential power and speed of a car is realized is far more a trait of man than of woman. A man has more of a spirit of bravado than a woman. He will rush up hill and down dale, thinking that as long as he is on a country road with so few houses in sight, there can be no one else on the road. But when we look through the papers we find that there was some one else present or certainly the accident could never have occurred. Although there are a great many women drivers even now, the proportion of accidents that they cause is far less than the proportion of their number to that of men.

A DICTIONARY OF AUTOMOBILE TERMS

By Joseph Tracy

[With the era of the automobile has come a new addition to the English vocabulary. Chiefly technical, these terms can mean little to the beginner. To help him in gaining a knowledge of the various parts of his car we have secured the services of one of the foremost authorities in compiling an Automobile Dictionary. — THE EDITORS.]

(*Continued from February, page 408*)

AXLE, STATIONARY.—An axle that does not rotate, on whose ends the wheels turn, as in the case of an ordinary carriage axle. The term is commonly used to designate the rear axle of a car which has its rear wheels driven by chains.

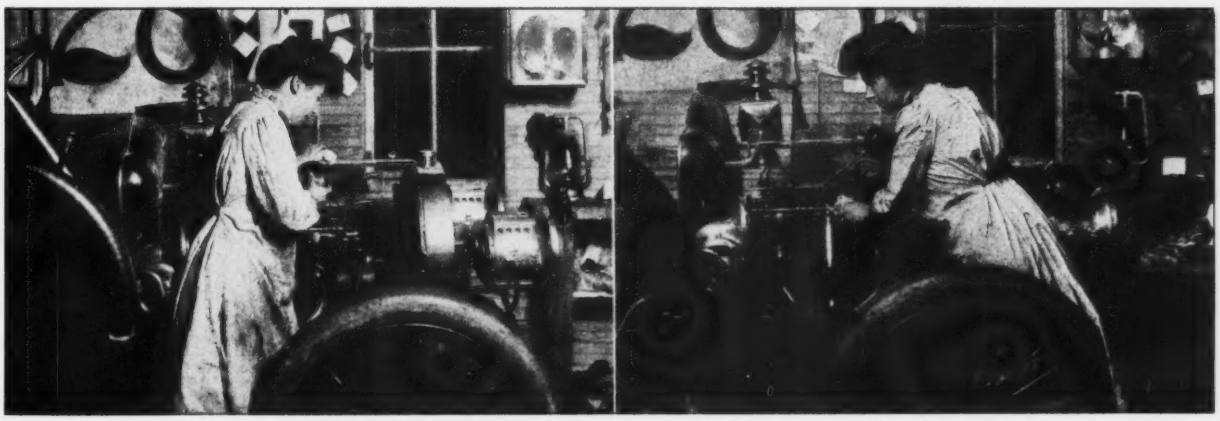
AXLE, TUBULAR.—An axle, usually the front one, made of steel tubing. While a live rear axle is partly tubular, the term "tubular axle" is commonly used with reference to a front axle of this construction.

BALL BEARING.—A bearing in which steel balls are interposed between the moving and the stationary parts for the purpose of reducing friction, rolling friction being very much less than sliding friction.

BALL BEARING, ANNULAR.—A ball bearing in which a circle of steel balls runs in grooves or races cut in the adjoining faces of two concentric steel rings, one race being cut in the outer face of the inner ring and the other race in the inner face of the outer ring. The rings are of such sizes that the space between them, including the depth of the grooves, is equal to the diameter of the balls, which therefore fill the space so closely as to permit practically no lateral motion of the rings with relation to each other, but are not so tight as to prevent free rotation. If a ball bearing of this type is to be used on a rotating shaft, the inner ring is secured on the shaft and the outer ring is held stationary. If the bearing is applied to a wheel running on a stationary axle, the inner ring is stationary, being secured to the axle, while the outer ring is secured to, and rotates with, the hub of the wheel. Some annular ball bearings have the balls separated by short helical springs, a ball and a spring alternating all the way around, or by pads of oil-retaining substance, or by cages which hold the balls the requisite distance apart and prevent their rubbing together when running. In other types the balls are placed close together without intervening spaces. In many cases more than one unit or ring of balls is used in a single bearing, as for instance in a road wheel, where there may be a bearing composed of rings of balls carrying equal proportions of the load. The annular ball bearing is the type commonly used in automobiles fitted with ball bearings.

BALL THRUST BEARING.—A ball bearing designed to receive the thrust due to endwise pressure on a shaft. One type of ball thrust bearing consists of two rings of equal size with grooves of ball races in their adjoining faces. The balls which run in these grooves are held in a retainer.

(*To be continued*)



In order to keep clean in working around a machine, a costume especially adapted to the purpose is necessary

THE ADVENTURES OF A SUBURBANITE

V.—MY DOMESTICATED AUTOMOBILE

By ELLIS PARKER BUTLER

Photographs by A. B. PHELAN

I SUPPOSE that if I had come home and said to Isobel: "My dear, I have bought an Asiatic hyena," she would have been less shocked and surprised than she was when I entered the house and said: "Well, my dear, I have bought an automobile."

Isobel is of a rather nervous disposition, and driving behind our horse had tended to decrease any speed mania she may have ever had, for he was not a rapid horse. Of course, Isobel drove the horse at a trot occasionally, but that was when she wanted to go slower than a walk, for the horse was what may be called an upright trotter — one of those horses that trot like a grasshopper; the harder they trot the higher they rise into the air, and the less ground they cover. When Bob was in fine fettle, as we horsemen say, he could trot for hours with a perpendicular motion, like a sewing-machine needle, and remain in the identical spot the whole time. He could trot tied to a post. Sometimes, when he was feeling his oats, he could trot backward.

I suppose that, when I mentioned automobile, Isobel had a vision of a bright red car about twenty-five feet long, with a tonnage like an ocean steamer, and a speed of 110 miles an hour — one of the machines that flash by with a wail of agony and kill a man or two just around the next corner. But my automobile was not that kind. It was no untested and untried affair; on the contrary, it had been in a careful, Christian family for five years, and was well broken. I learned, soon after I got it, just how well broken it was. Nor was it a long automobile; it was one of the shortest automobiles I have ever seen; indeed, I do not think I ever saw such a short automobile. "Short and high" seemed to have been the maker's motto, and he lived up to it. He couldn't have made the automobile any shorter without having cogs on the tires, so they could overlap. If the automobile had been much shorter the rear wheels would have been in front of the fore ones. But what it lacked in length it made up in altitude. It averaged pretty well, multiplying the height by the length. It was the type known, in the profession, as the "camel" type. When in action it had a motion somewhat like a camel, too, and somewhat like a small boat on a wintry, wind-tossed sea. But ah, the engine! There was a noble heart in that weak body! When the engine started one knew it had started. In two minutes after the engine started the driver was on the ground; if he did not become dizzy, sitting at such a height, and fall off, the engine shook him off.

But, if Isobel did not take kindly to the idea of an automobile, Mr. Rolfs and Mr. Pedley did. When I mentioned the brand, Mr. Rolfs said he had known a man once who had owned a machine of that brand, eight or ten years ago, and that it was a good make, and Mr. Pedley said that everyone knew that the machines of that brand that were turned out in 1900 were extremely durable. He said he remembered it particularly, because it was at the period when milk-shakes were the popular drink, and his friend used to make his own. He said his friend would put the ingredients in a bottle and tie the bottle to the automobile seat and then start the engine for a minute or so, and the milk-shake would be completely shaken. Then he said that all I would have to do would be to get a cow, and when I got enough cream, put it in a keg and take it for a little spin in the automobile, and on my return it would be churned into the best kind of butter. He said he hoped I would be sure to let him know when the automobile arrived.

I had no difficulty in doing so. The only difficulty would have been in concealing the fact that that automobile was arriving anywhere, or in getting it to arrive. Often it preferred not to arrive at all, but when it did arrive it gave everyone notice. Isobel never had to wonder whether I was arriving in my automobile, or whether it was a visiting machine. My machine had a sweet, purring sound, like a road-roller loaded with scrap-iron crossing a cobblestone bridge, when in motion; and when at rest the motor made a noise like fire-crackers under a dish-pan.

Oddly enough, Isobel, who usually has perfect confidence in me, declined to ride in the automobile, but we frequently took rides together, driving side by side, she in her buggy behind Bob, and I in my automobile, and occasionally, when the road was rough and the engine working well I would drop in on her unexpectedly. But not always. Sometimes I fell off on the other side. I found these little trips very pleasant, and exceedingly good for a torpid liver — if I had had one — and I enjoyed having Isobel with me, especially when we came to bits of sandy road, where the rear wheels of my automobile would revolve aimlessly, as if for the mere pleasure of revolving. Then I would unhitch Bob from the buggy and hitch him to the automobile, and he would tow me over the sandy stretch, aided by the engine. It was a pretty picture to see this helpfulness, one to the other, especially when the engine was palpitating in its vivid vibratory manner and Bob was trotting at full speed, and I was gracefully dropping to this side or the other. Isobel enjoyed these little moments exceedingly, and often I had to go back to her, after I had passed the sandy spot, and pat her on the back until she could get her breath again. She had to admit that she had never imagined she could get so much pleasure out of an automobile. But it was that kind of an automobile — anyone could get more pleasure out of it than in it.

"Isobel enjoyed these little moments exceedingly"

I found, myself, that after the first novelty had worn off, automobiling became a bore. As a method of securing pleasure the cost per gallon to the unit of joy was too high, in that machine. In a large, modern machine, that will hold six persons, and in which the gasolene consumes itself in getting the machine over the ground, one secures several units of joy for each gallon of gasolene burned — each person can have at least one unit of joy — but my automobile spent nine-tenths of each gallon in merely producing violent vibratory tremblings, and then the rest of the gasolene flooded the carburetor and wasted away aimlessly. I could not, after a first occasion, even get Mr. Rolfs or Mr. Pedley to ride with me. They said they preferred to stay at home and have plain malaria, complicated with chills and fever of the good old sort, rather than ride with me, for at the worst stages of chills and fever one could no more than shake himself out of bed. Riding in my automobile was not what is called "joy riding." It was more like a malady.

It was about the time when my tire troubles began that I thought of domesticating my automobile. I

remember with what pride I discovered my first puncture. Every automobile owner of my acquaintance had tire troubles, and I had never had any, and I felt slighted. Sometimes I almost decided to take an awl and puncture a tire myself, so that I too could talk about my tire troubles, but I had a feeling that it would be unprofessional. I had never heard of any real sporty automobilist punching holes in his tires with awls; in fact, they seemed to consider that there was no particular pleasure in puncturing a tire or in having a blow-out. That was the way they talked — as if a puncture was a misfortune — but I knew better. I could hear the undertone of pride when they announced: "Well, yesterday I had three punctures and two blow-outs. I was running along rather slowly — about fifty-five miles an hour — between Oyster Bay and Huntington, when ——" And then the next man would pipe up and say: "Yes? Well, I beat that. When I was speeding a little — not much, but about sixty miles an hour — on the Jericho Turnpike, last night, all four tires ——" And through it all I had to sit silent. I had never had a puncture. I had never had a blow-out. I was not in their class.

But my turn came. I was speeding a little — not much, but about half a mile an hour — on Thirteenth Street, when my sparker gave out. When your engine misses fire there are six hundred and forty-two things that may be the matter, and after you have tested the six hundred and forty-two, it may still be a six hundred and forty-third trouble that is the matter. I have known a man to try the full six hundred and forty-two remedies unavailingly, and then sigh and take out his handkerchief and wipe his goggles, and the engine immediately began firing as it should. And it was only chance — pure chance — that he happened to wipe his goggles. Probably he had not wiped them for years. But after that the first thing he did when his engine did not fire, was to wipe them. And never, never again did it have the least effect on the engine. That is one of the peculiar things about an automobile. And there are nine thousand other peculiar things. And each of the nine thousand is more peculiar than the other eight thousand nine hundred and ninety-nine.

I had just taken my automobile apart to find why the engine did not work, and the various pieces of its inner anatomy were scattered up and down the road for a block or more, and I was looking for another piece to take out, when I noticed that one of my tires was flat. I had a puncture! I suppose I would have thrilled with joy at any other time, but just after a man has dissected his automobile is no time for him to find a puncture. His mind is occupied with other thoughts. I have even known a man, who had just discovered that his batteries had all gone dead, to swear when he discovered that he also had a puncture.

It was when I was pumping up the new inner tube that I decided to domesticate my automobile. It seemed to me a shame to take such a delicate piece of machinery out on the rough, unfeeling road, and I remembered that Rolfs had told me of a Philadelphia friend of his who had semi-domesticated his automobile. Rolfs said they had had about an hour's ride out to the friend's farm, and there the automobile was jacked up, a belt attached to one of the rear wheels, and in less than five minutes the car was doing duty as a piece of farm machinery, running a fodder-cutter. Rolfs said it was great. He said that all the men had to do was to keep the fodder-cutter fed with material, and that it kept two farm-hands mighty busy feeding fodder into the cutter. He said I ought to get some fodder and cut it that way. He said I could get some wood and a saw, and saw wood with the automobile; or I could get some apples and make cider with it. After that ride he had with me he was always suggesting things I could do with the automobile. Riding in it was not one of them.

I must say that Mary was one of the most faithful servants a family ever had. Her faithfulness deserves this word of acknowledgment. She is a Pole, and she cannot pronounce her own name. She tried to pronounce it the day she came to us, but along toward the sixth or seventh syllable she became confused, and had to give it up. She told us it was "Schneider" in English. I suppose one reason she stayed with us so long was because she had brought her Polish name with her, and it was a lot of trouble to move it. When she once got it in a place she liked to stay there. But "Schneider" was about the only English word she knew, and this made it a little difficult to explain to her that I had domesticated the automobile and would allow her to use it on wash-day. She could not connect wash-day and automobiles in her mind. I had to make a picture of it, and then she seemed rather doubtful about it.

As a matter of fact, it was all very simple, but Mary Schneider was rather dense. We already had the washing-machine, and we had the automobile, and all that was necessary was to connect the rear wheel of the automobile with the drive wheel of the washing-machine by means of a belt, jack up the rear axle of the automobile, and start the engine. I hoped, in time to go further than this, and attach the power to the coffee-mill and the flour-sifter and the carpet-sweeper and all the other household instruments, and then Mary would have had a very easy time of it. She could have sat in the automobile and kept the engine working and her work would have done itself. But she would not sit in the automobile. She tried to explain that she had seen me sit in it, and that the Schneiders, as a family, had very brittle bones and could not afford to fall out of automobiles, but I could not understand what she was saying. I only knew that she said she would give notice immediately if she had to sit

"Riding in my automobile was not what is called 'joy riding'"

"I had just taken my automobile apart"

in that automobile while the palpitator was working.

I had a feeling that all this was mere diffidence on her part, and that if she once saw how easy it all was she would be delighted with it. So I jacked up the rear axle of the car in my back yard, and attached the belt to the rear wheel and to the drive wheel of the washing-machine. I stayed at home one Monday morning especially to do this, and Isobel thought it was very kind of me. She said she was sure Mary could do it, and would be glad to, after she had once seen how it was done.

Mary put the soap in the washing machine, and the hot water, and the clothes, and I started the engine. It was all that I had hoped. Never, never indeed, had I seen clothes washed so rapidly. Luckily, I had thought to nail the legs of the washing-machine to the floor of the back porch. This steadied the washing-machine and kept it from jumping very much. Of course some vibration was conveyed along the belt from the automobile, and Mary had to hasten to and fro, bringing more hot water to refill the washing-machine. It was a like storm at sea, or a geyser, or a large fountain. When at good speed the water hardly entered the washing-machine before it dashed madly out again, and Isobel had to help out by putting in more clothes continuously. It used up clothes as rapidly as Rolf's friend's fodder-cutter used up fodder, but I think it cut the clothes into smaller pieces. We discovered this when we hunted up the clothes afterward. We did not know it at the time. All was excitement at the time.

It was a proud moment for me. The engine was running beautifully, the dasher of the washing-machine dashing madly, and Mary running and dashing to and fro for water, and Mrs. Rolfs and Mrs. Pedley cheering us on. I felt that we would break all records for clothes washing, if Mary could only keep water in the washing-machine. It was then that I fell out of the automobile.

Possibly the sudden removal of my weight had an effect. It may have been that my head striking one of the rear wheels moved the axle. Of this I cannot be sure. Anyway, the rear axle unjacked itself and, as the rear wheels touched the ground, the automobile darted away. I was able to touch the washing-machine as it hurried by, but it did not wait for me to secure a firm grasp, and it went on its way. But Mary was faithful to the last. *She*—ignorant as she was—knew that the weekly wash should not run madly away from us. *She*—although but a Pole—knew her duty, and she did it. She clung to the washing-machine. Whither it went *she* was going, and she did.

The rear porch was not badly damaged. Only those boards to which the washing-machine had been nailed went with it; but where the automobile went through the back fence we had to make extensive repairs. But it was all for the best. If the automobile had not made a hole in the fence Mary could not have gone through. Of course she could have gone around by the gate, but she would have lost time, and she was not losing any time. Neither was the washing-machine. The automobile did not gain an inch on it, and sometimes, when it made a good jump, the washing-machine almost overtook the automobile. So did Mary.

I saw then that I had not thoroughly domesticated the automobile. Isobel and I had the same thought at almost the same instant as we stood and watched the automobile and the washing-machine and Mary dashing rapidly into the distance. We both felt that my automobile was still a little too wild and unbroken for household use, but as for me, I felt that the automobile would be tame enough before it came home again. Perhaps a young, strong automobile can take cross-country runs without harm, but an elderly automobile like mine cannot dash across country towing a washing-machine and a faithful servant without injuring its constitution. I do not blame the washing-machine—it could not have let go, because it was belted on—but Mary should have released her hold when she found there was too much strain on the automobile. But it is strange how differently the minds of male and female run. As I watched the automobile disappear over the edge of the hill I said:

"Isobel, I fear that is the last of that automobile."

But Isobel said:

"John, I am afraid we have lost Mary."

After all, we were both right. And yet, that was the very last automobile I would have suspected of running away, and Mary was the last girl one would have believed capable of running away with an automobile. When she returned she did not say much. "Schneider" was about the only English word she knew, and it did not seem to express what she would have liked to say. She acted as if she would have liked to pronounce her Polish name at me, if she had dared, but she only packed her trunk and went.

"I saw then that I had not thoroughly domesticated the automobile"

SAWING THE WINTER'S WOOD

IT MAY interest some of the readers of COUNTRY LIFE IN AMERICA to know that I've found that it doesn't always pay to "say nothing and saw wood."

I am foreman on a country estate where we don't have the long winter's rest that one is accustomed to on a farm. With cows and chickens to get in show condition, and with my employer's forestry and drainage hobbies to carry out, there is really no time for any one to saw a supply of firewood by hand for household use.

We first tried a treadmill and found that it took two men to operate it—one to do the actual sawing and the other to run the brake to prevent the machine from racing and injuring the horse when there was no work being done by the saw itself. It was a horse-killer anyway, but it would really saw an amazing lot of wood in a day.

We started this way, and found that by selling the surplus in the neighborhood we could average a profit of about $2 a cord over the value of the wood, after the wages of the men were paid and all expenses deducted.

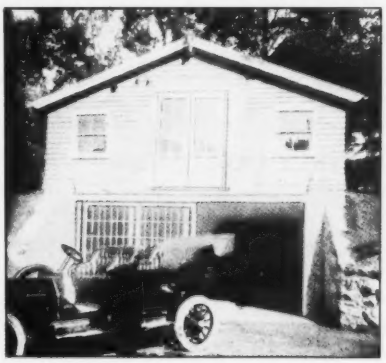
The treadmill method, however, entailed too much trouble, so last year we bought a 3-horse-power gasolene engine, and it has been very satisfactory. One man can run it and do twice as much work as the old way, and we can run the engine all day with a gallon and a half of gasolene.

Besides using the power for sawing wood, we also run a grindstone and a washing machine.

The first cost of a gasolene engine is what deters most people from getting one, but if people living in the country could be brought to realize what it means in added comfort and saving in cost of labor, very few would be without one. At least, that has been our experience, and I know a number of country people who have installed engines and who say they wouldn't do without them for many times their initial cost. C. MACPHERSON.

A WONDERFUL SCENIC AUTOMOBILE ROAD

THE West always inspires one with a greater regard for the natural beauty and picturesqueness of this country than the civilized and ultra-artificial East. Rugged and yet essentially artistic, it would appear to be the place of all others that should appeal to the traveler in general, and the motorist in particular, but hitherto its attractive features have been almost entirely veiled to the large and constantly increasing body of automobilists who want to travel everywhere in their cars. The condition of the Western roads has always been the main obstacle to automobile usage, but this trouble seems in a fair way to be remedied.



The lower half of this garage is cut into solid rock and is practically weather-proof

In the Mt. Rainier National Park, the United States Government is opening what is perhaps the most remarkable automobile highway on the American continent. It is a roadway, the course of which was selected with the one thought of obtaining the most striking advantages, and, high up on the sides of Rainier, it affords at almost every turn a new and grander view of the tallest and most majestic mountain in the main body of the United States.

Federal engineers have spent the greater part of appropriations, aggregating $200,000 in the construction of a little more than twenty-four miles of automobile highway. Eventually the road will be extended entirely around the mountain, but further construction awaits additional congressional appropriation.

In the centre of the great wilderness of the National Park, the highway from the park entrance to the Camp of the Clouds is as fine a piece of macadam road as can be found in the United States, save for the last four miles, which are still in an unfinished state.

Entrance to the Park is now made by way of Tacoma and the town of Ashford, on the Tacoma and Eastern line. A good automobile road extends the fifty-five miles between Tacoma and Ashford. A country road leads from Ashford to the boundary of the forest reserve, two and one-half miles from Ashford, and a little farther along the Automobilists reach the gate of the park, where all place their names on the register of visitors.

Longmire Springs, for many years a favorite spot for tourists, is something like five miles beyond the park gates. To the Camp of the Clouds the distance is fourteen miles beyond Longmire Springs. The road rises so gently, switching back and forth along the precipitous sides of Nisqually canyon, that the autoist scarce realizes he is ascending, but at frequent intervals the roadway above and below him becomes visible. So winding a route does the scenic boulevard take that an airline between Longmire's and the Camp of the Clouds is perhaps not greater than six miles.

J. H. OGDEN.

The Mt. Rainier roadway, built by the United States Government, affords for the automobile tourist a succession of unsurpassed mountain views

A NOVEL GARAGE

MR. WILLIAM C. TUCKER of Englewood, N. J., has built for himself, recently, a garage that seems to be as complete as can be desired for the housing of one car.

The building is large enough to accommodate two cars, with ample room around them for cleaning and inspection. It often happens that one cannot, without moving the car, get at the place one wishes to, a trouble that is done away with by the addition of a little extra floor space. The sliding glass doors have the advantage over the usual swing doors, in that they require no hooks or blocks to hold them open, thus doing away with the possibility of the door being blown shut on the car while leaving or entering the garage. In order to admit more light the doors were constructed with as much glass as possible, with small panes so as to minimize the cost of replacing broken glass.

The floor of the garage is constructed of the best quality of Portland cement — a wise precaution, since cheaper cement invariably flakes off and creates dust. It is divided in half, each part draining toward its centre from its four corners. At the centre of each division of the floor is placed a cast iron cess-pool and grit chamber from each of which runs a 4-inch cast iron drain-pipe. These unite and empty into a brick grit-chamber outside the building, which also acts as a catch-basin for the grease. From this grit-chamber is taken a 4-inch cast iron pipe, which connects with the sewer in the street. The water supply and hose connections are ample.

The building is illuminated by electricity, with an emergency gas connection; over each division of the floor space is a central cluster, with separate controlling switches. Hanging fixtures at the middle of each side wall are equipped with combination connections so that a "trouble-light" may be connected to any of them if a close inspection of the machinery is desired.

The gasolene for the building is supplied by gravity from a tank, situated in the bank, at some distance to the rear of the building, which is provided with a vertical gauge which shows at a glance the height of the gasolene in the tank. The tank itself holds 120 gallons, so that, with a gauge attached, there should be no danger of that chief of minor troubles — shortness of petrol.

The second floor is used as tool-room and work-shop. Electricity is the motive power

In the construction of the building, great economy was exercised in the purchase of materials, but only the best were employed. The second floor beams were especially heavy, being 3 inches by 12 inches on 12-inch centres with a double flooring, the upper flooring being ¼-inch material. This was done to insure adequate support for the machinery in the workshop.

In the garage is built a work-bench, with shelves above and drawers and closets underneath, which accommodate all tools, small articles, cleaning materials, oils, greases, etc.

The second floor of the building contains a large-sized work-shop with tool-house for the gardener and a storage-room. The workshop also contains a lathe, an emery wheel, a grindstone, a vertical drill and a forge and anvil. All of this machinery is electrically operated.

The cost of erecting this building, depending, as it did, on the amount of the bids for contracts, would very probably be different in another locality, but the total outlay should not exceed $1,000 to $1,500.

T. G. MACFIE.

25-Year-Old Autos Reborn Here

The rusty old motor with two opposed cylinders was scattered over a work bench. The wagon-wheeled chassis "with the fringe on top" tilted precariously.

A mechanic was tinkering with a valve in one of the air-cooled cylinders and an upholstery expert was freshening up the frayed old seats with shiny new materials.

"AN OLD SEARS. Remember?" said Maj. Lenox Lohr, president of the Museum of Science and Industry in Jackson Park. "When we complete this overhaul job, this old car will look as though it just came off the assembly line.

"It will run as well as any old Sears car ever ran. You can take it out on the boulevards with the assurance that it will get you there and back with the same ease as any modern car. Maybe we'll take a spin to Lake Geneva in it during the summer."

Maj. Lohr was roaming through Chicago's most novel automobile factory. Nothing younger than a 25-year-old car has ever been wheeled into its workshops.

One mechanic was rebuilding the boiler of a Dobel steamer. A Stanley and a White steamer were in process of getting new upholstery and paint. New fenders, fashioned in the shops of exactly the same pattern as the ones that had been rusted out, already adorned the chassis. The paint was identical with factory jobs of more than a generation ago, even to the fine pin stripes.

WAITING rejuvenation in the factory or parked along the village street in the museum were other old timers, some with names still familiar some a mere memory —Cadillac, Buick, Maxwell, Dort, Austin, Mercedes, Locomobile, Hupmobile, Brisco, Stoddard-Dayton, Stevens-Duyrea, Mercer, Stearns - Knight, Willys - Knight, Brush, Haynes, Marmon and Stutz.

Old cars are Maj. Lohr's hobby. With James Melton, the singer, he is swiftly cornering the market. On every out-of-town trip he snoops in old barns in hope of picking up another old car.

Half the cars in the museum are his personal property; some 20 others are parked in his private garage in Evanston.

Next week one of his daughters will start on a 1,500-mile trip to the Lohr ranch in the Southwest in a 1912 sport car.

"She'll get there with no more trouble than with a 1947 model," the major said.

"Our trouble is getting parts because of the scarcity of old cars. When they are not available from other old cars, we make them."

THE "FACTORY" and old cars garage is in the museum's basement. There a dozen workmen give the relics a going over from tiniest rivet to fabric top.

The workers, themselves hobbyists, are expert mechanics who prefer recreating the "dust raisers" to assembling shiny new models.

NEW CARS FROM OLD—Maj. Lenox Lohr (left), president of the Museum of Science & Industry, watches Mechanics A. W. Beton and Rube De Launty repair a Sears-Roebuck old-timer. [Daily News photo.]

Car-Horse Crash Unlisted in Book

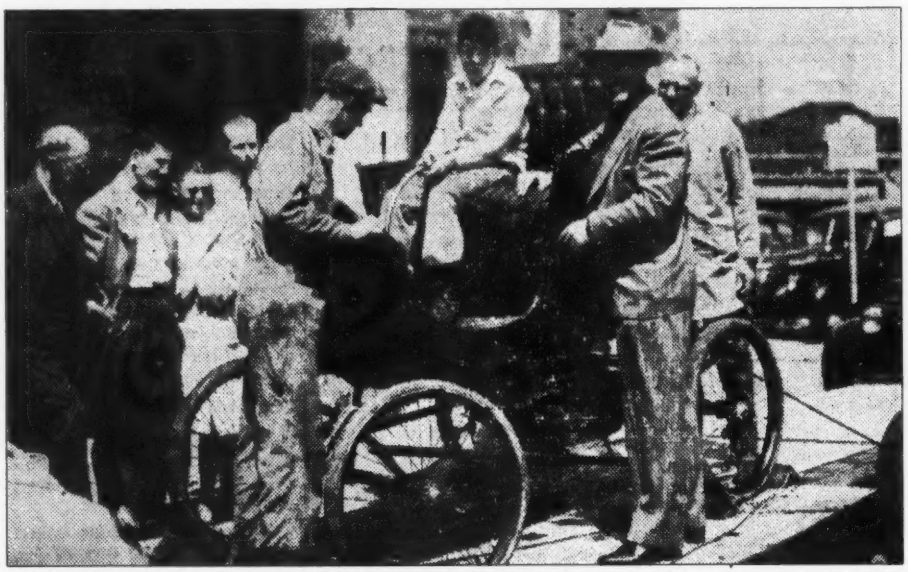
Portland traffic officers dug deep into the rule book Friday night seeking proper regulations covering a car-horse collision at S. E. 82d avenue and Woodward street.

Rider Sam Vittovia, 17, 7927 S. E. Woodward street, attempted to cross 82d avenue on his 7-year-old mount and was struck by a car driven by Raleigh W. Wilson, 30, 633 N. E. 69th avenue. The horse was knocked down, suffering a broken back and the rider thrown to the pavement with a lacerated lower lip and broken front teeth.

Vittovia told Traffic Officers A. H. Synder and M. Nahorney he attempted to get the horse out of the path of the car but was unable to do so.

Officers listed the cause of accident as "riding without lights." They made no arrests.

Mobile Steamer Arrives for Walker Collection



This Mobile steamer, made by the same company that built the famous Stanley steamer, is being shown above to a group of interested bystanders by Alton Walker (right), proprietor of the Walker Aircraft Company at Monterey Airport, whose hobby is collecting old cars. The steamer is a very rare collector's item, dating from 1896. It is one of several still extant, and was purchased by Walker in Virginia. One of the features of the steam driven auto is a built in pump for taking water out of any convenient stream. The car just arrived by rail from the East and Walker hopes to have the machine in working condition soon. (Herald photo)

50 Years Ago Today—February, 1898

News Synopsis: For weeks it has been unsafe for the owner of a robe in Pasadena to leave it in his buggy. A certain Mr. Williams has been arrested for the theft of a number of robes, several of which have been found in second hand stores in this city...

25 Years Ago Today—September, 1922

News Synopsis: .....Sidewalks between Eleventh and Pico on South Broadway were crowded with thousands of spectators Saturday afternoon when Abner Doble demonstrated what his Doble steam car would do. He was at the wheel himself, and among other feats drove his car in reverse at a speed most automobiles will run in high.

Stewart MOTOR TRUCKS cost 20% less to run-

—Many Stewart owners say they operate their Stewarts at 20% less than other trucks.

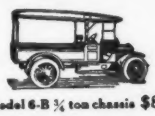
—that a horse-driver finds the Stewart so simple he can run and care for it with ease.

In 5 years no Stewart has worn out.

Stewart Motor Corporation, Buffalo, N. Y.

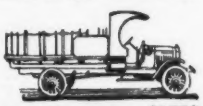
(Ask us for: "How to Buy a Truck." Sent free)

(Below prices are F. O. B. Buffalo)

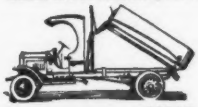


Model 6-B ¾ ton chassis **$850**

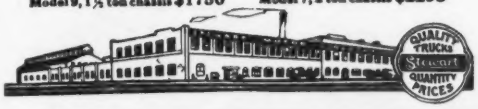
Model 8, 1 ton chassis **$1395**



Model 9, 1½ ton chassis **$1750**



Model 7, 2 ton chassis **$2295**

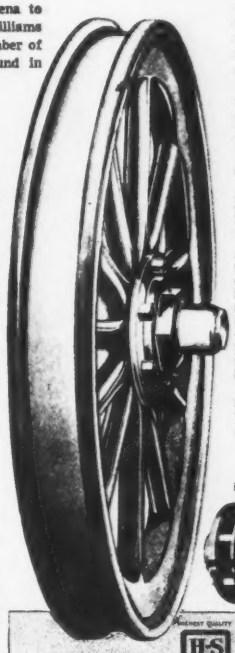


Credit Frank Duryea

After many years, J. Frank Duryea is now given credit as the co-builder of the first Duryea car on display in the Smithsonian Institute, Washington, Automotive News learned last week.

The placard on the 1893-94 car now reads "built by the Duryea brothers, Charles E. and J. Frank."

For FORD CARS **MINUTE WHEEL** DEMOUNTABLE H-S



A tire changed in 60 seconds—One nut to unscrew, that's all you do

DRIVE, this Summer, free from tire-changing annoyances. Carry your spare tire on the Minute Demountable Wheel.

You'll get more mileage out of your tires.

No mud encrusted rim to pry off. No more soiled hands, wilted collar, ruffled temper or lost time.

The Minute Demountable Wheel is backed by the **H-S** Trademark of quality. Thousands now in use. Equipment consists of extra wheel, interchangeable front or rear—four hubs to replace present Ford Hubs. You use the Ford Wheels. Simple to install.

A quick tire change to meet the need of doctors, women drivers, owners of Ford delivery fleets, every alert Ford owner.

A FLAT TIRE

OFF WITH THE WHEEL

ON WITH THE TIRE
IT TOOK ONLY A MINUTE!

Price $30 Complete
Denver and West $35

We are filling orders to accessory dealers as rapidly as possible but would advise if you are in a special hurry for this equipment to write us direct and we will see that your dealer is given a shipment to take care of immediate orders.

Send for booklet giving complete information. Mention this magazine and name of dealer.

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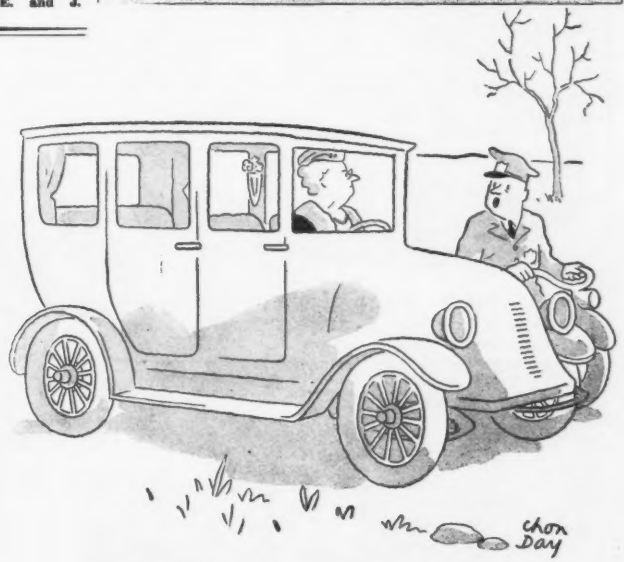
HIGHEST QUALITY H-S PROMPT SERVICE

HILL-SMITH METAL GOODS COMPANY
MANUFACTURERS OF MOTOR PARTS AND ACCESSORIES
REPAIR PARTS FOR THE FORD AND OVERLAND CARS
BOSTON, MASS.

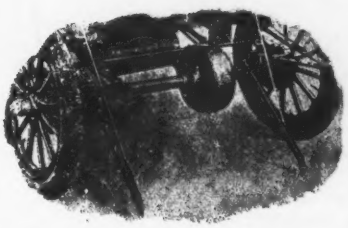
HOBBYIST DOUBLES AT ACTING?

The above photo was submitted by Editor Art Twohy for publication in the GAZETTE with no explanation why it should be published.

In a recent issue of the GAZETTE, a photo layout of "Antique Autos in the Movies" showed that Art Twohy had not only rented cars to the movies, but at times appeared in them. Could it be that the gentleman above is Art? We detect a striking resemblance, which accounts for his eagerness to have this photograph reproduced.



"I know it sounds ridiculous, but you were speeding."



The Drop Brake

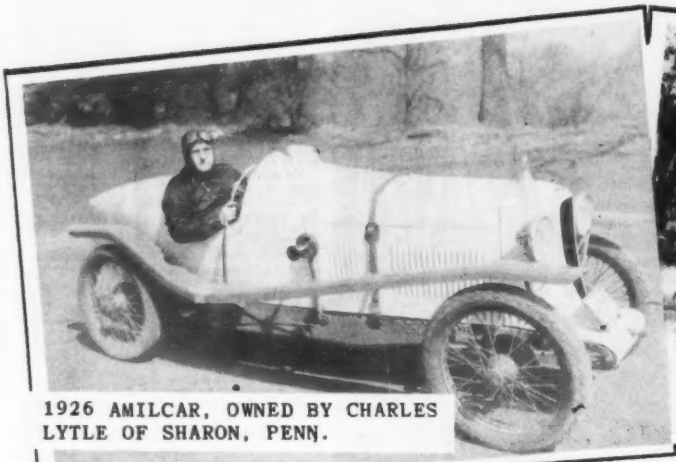
Don't wait until you have a serious accident—ORDER NOW

Our "General" Drop Brake is a device to be used when ascending hills or mountains in an automobile. This sprag is to prevent the car which has been stalled on a grade from running backward, should there be occasion to stop the car or come to a standstill of its own accord due to derangement of the mechanism, punctured tires, broken chains, poor brakes, or any other reason beyond the control of the operator. In such an event the brakes can be dropped as shown in cut, which will bring the car to a standstill immediately. Made in two lengths.

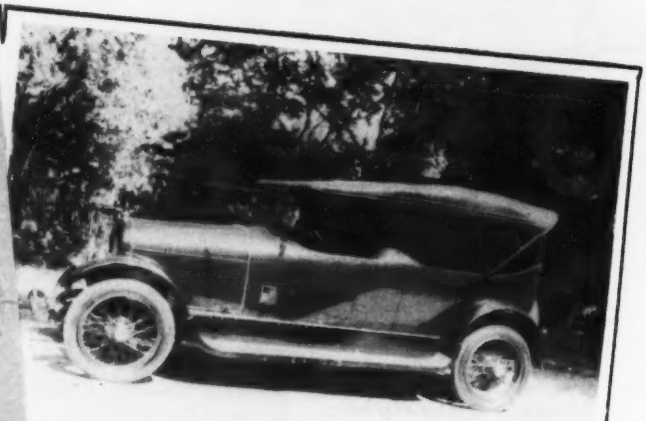
For 28, 30 or 32-inch wheels . . . . . price $5.00 per pair.
For 34 or 36-inch wheels . . . . . price 6.00 per pair.

DO YOU REMEMBER THE "DROP BRAKE"?

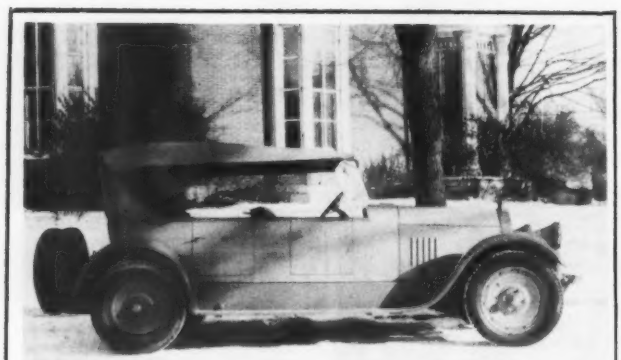
FROM OUR MEMBERS



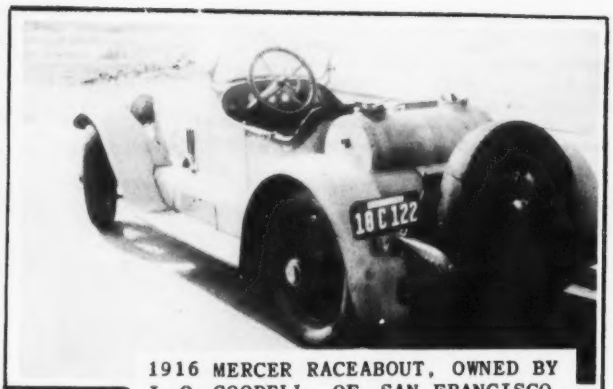
1926 AMILCAR, OWNED BY CHARLES LYTLE OF SHARON, PENN.



1920 MARMON MODEL 34, OWNED BY STANFORD S. BLOCK, KANSAS CITY, MO.



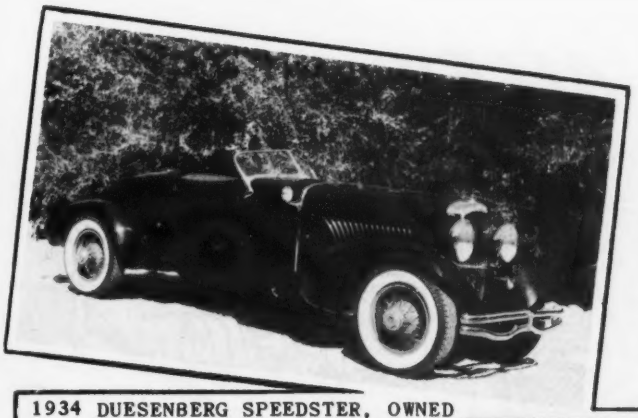
1922 PIERCE-ARROW T-HEAD DUAL VALVE OWNED BY FRED E. BISSELL, JR., WHO LIVES IN DUBUQUE, IA.



1916 MERCER RACEABOUT, OWNED BY J. O. GOODELL, OF SAN FRANCISCO, CALIF.

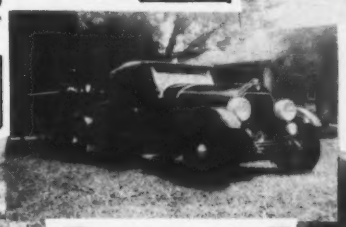
MODEL 97 DETROIT ELECTRIC OWNED BY RAY DOUGHERTY OF LONGMONT, COLO.

1921 NASH OWNED BY JOSEPH A. REIN, JR., OF RIVERSIDE, ILL.

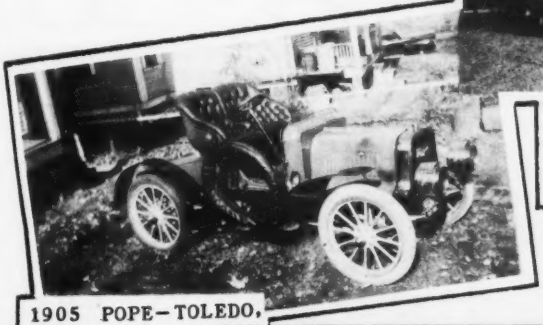


1934 DUESENBERG SPEEDSTER, OWNED BY STACY G. CARKHUFF, JR., OF TOPEKA, KANSAS.

1914 PIERCE ARROW, OWNED BY SYDNEY STRONG, OF ATWATER, MINN.

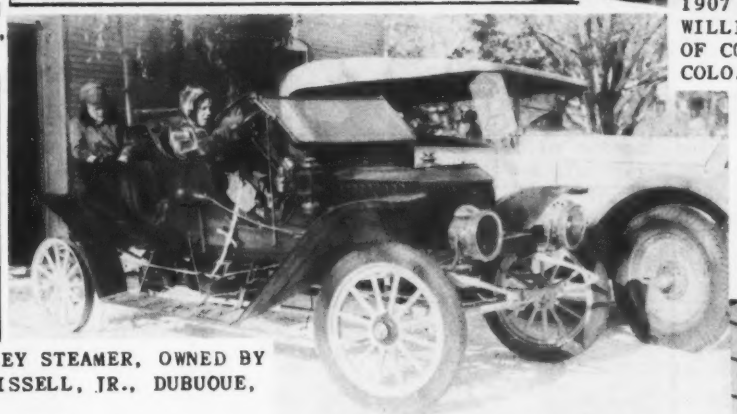


1925 STUTZ 6. OWNER IS G.M. HOWELL, CLARCONA, FLA.



1905 POPE-TOLEDO, OWNED BY GORDON A. BLAINE, TOLEDO, OHIO

1907 BRUSH OWNED BY WILLIAM J. PFEIFFER OF COLORADO SPRINGS, COLO.

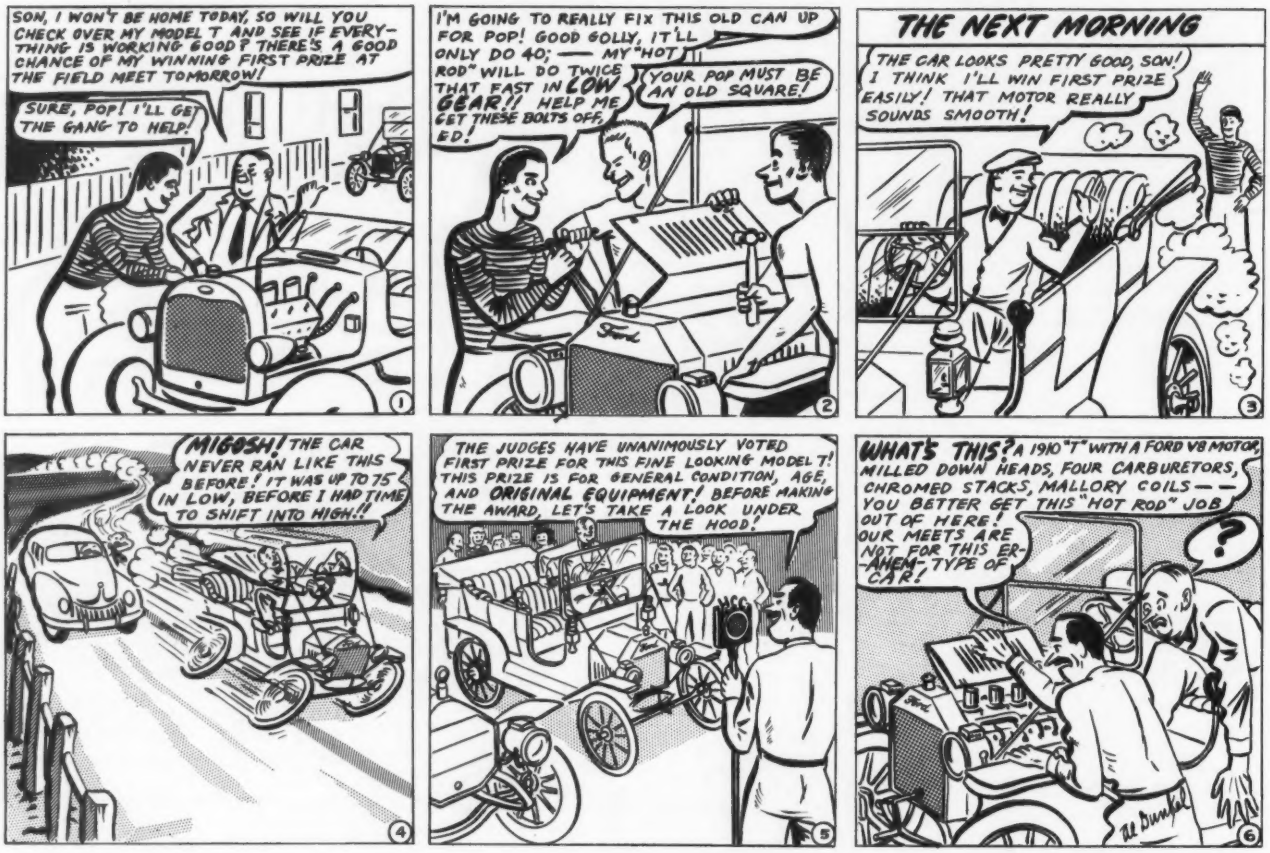


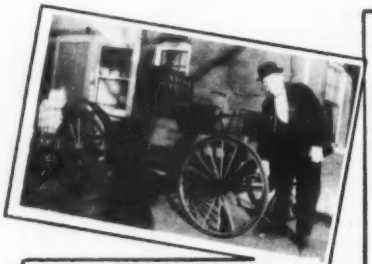
1910 STANLEY STEAMER, OWNED BY FRED E. BISSELL, JR., DUBUQUE, IA.

1922 ROLLS ROYCE SILVER GHOST, OWNED BY RAY DOUGHERTY, OF LONGMONT, COLO.

1889 DE DION COKE FIRED 2-CYLINDER COMPOUND STEAMER, OWNED BY HENRI GIROD-EYMERY, PARIS, FRANCE.

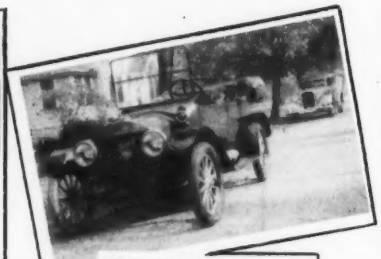
THE OLD CAR ALLEY BY Al Dunkel


SON, I WON'T BE HOME TODAY, SO WILL YOU CHECK OVER MY MODEL T AND SEE IF EVERYTHING IS WORKING GOOD? THERE'S A GOOD CHANCE OF MY WINNING FIRST PRIZE AT THE FIELD MEET TOMORROW!
SURE, POP! I'LL GET THE GANG TO HELP!
1
I'M GOING TO REALLY FIX THIS OLD CAN UP FOR POP! GOOD GOLLY, IT'LL ONLY DO 40; — MY "HOT ROD" WILL DO TWICE THAT FAST IN LOW GEAR!! HELP ME GET THESE BOLTS OFF, ED!
YOUR POP MUST BE AN OLD SQUARE!
2
THE NEXT MORNING
THE CAR LOOKS PRETTY GOOD, SON! I THINK I'LL WIN FIRST PRIZE EASILY! THAT MOTOR REALLY SOUNDS SMOOTH!
3
MIGOSH! THE CAR NEVER RAN LIKE THIS BEFORE! IT WAS UP TO 75 IN LOW, BEFORE I HAD TIME TO SHIFT INTO HIGH!!
4
THE JUDGES HAVE UNANIMOUSLY VOTED FIRST PRIZE FOR THIS FINE LOOKING MODEL T! THIS PRIZE IS FOR GENERAL CONDITION, AGE, AND ORIGINAL EQUIPMENT! BEFORE MAKING THE AWARD, LET'S TAKE A LOOK UNDER THE HOOD!
5
WHAT'S THIS? A 1910 "T" WITH A FORD V8 MOTOR, MILLED DOWN HEADS, FOUR CARBURETORS, CHROMED STACKS, MALLORY COILS — — YOU BETTER GET THIS "HOT ROD" JOB OUT OF HERE! OUR MEETS ARE NOT FOR THIS ER-AHEM- TYPE OF CAR!
?
Al Dunkel
6



MYRON RITTER OF KANSAS CITY, MO., AND HIS 1906 SEARS.

EDDIE PULLEN AND MERCER NO. 4, AT THE SANTA MONICA VANDERBILT CUP RACE, 1916.



1913 MAXWELL OWNED BY W. KRAFT.

1911 MARMON "32" TOURING, OWNED BY CHARLES SUDDETH, BLUFFTON, INDIANA.

STAVER-CHICAGO, CIRCA 1910, OWNED BY ALVA W. DAVIS, OF TUCSON, ARIZONA.

BARBARA LOHR, DAUGHTER OF MAJOR LENNOX R. LOHR, PRESIDENT OF MUSEUM OF SCIENCE AND INDUSTRY, CHICAGO, IN A 1909 SEARS.

1914 FORD OWNED BY G. WHITNEY SNYDER OF SEWICKLEY, PENN.

ODDS and ENDS

From THE HORSELESS AGE, April 7, 1909

DEALERS PUNISH FAKE "PROSPECT"

By concerted drastic action the automobile dealers of Los Angeles have succeeded in obliterating that plague of the trade, the man who asks for demonstration rides and entertainment in the guise of a buyer, without having the least intention of purchasing a car. They selected Joseph P. Keogh, a real estate agent, proclaimed by the dealers to be the worst automobile fake "prospect" in the county, for the demonstration. It is alleged that Keogh induced practically every automobile dealer in Los Angeles to take him on demonstration rides of various distances, accepting all entertainment offered thankfully, without, however, being able to make up his mind definitely enough to purchase.

When he applied to R. J. Leavitt, agent for the Locomobile, for a demonstration his fame had preceded him. Leavitt readily acceded and, in company of the host, L. T. Shettler, president of the Automobile Dealers' Association of Southern California, and a friend, Keogh was taken on a lone ride.

A grade in an inhospitable, uninhabited wild mountain section 22 miles from Los Angeles was selected for the demonstration. There, at a turn in the miserable road among the bare hills, a committee of dealers who had taken Keogh on fruitless "joy rides" awaited him. After being bundled unceremoniously out of the tonneau, the agent for the Pope-Hartford, W. R. Ruess, forced Keogh to sign a statement to the effect that Keogh had bought no Pope-Hartford which fell to pieces, that he had bought no machine at all, and that all his utterances and judgments on the make were deliberate lies. Though Keogh pleaded to be taken home; though he offered to reimburse Ruess for all demonstration expenses, though he declared that he really intended to buy a machine and would prove his words by investing, the dealers turned a deaf ear to his pleas, started the motor and drove off after a newspaper photographer had taken a photograph of the victim starting on his walk home through the deep mud, as a warning to other "prospects" who never pan out. Since the nearest railroad was ten miles from the spot where Keogh was dumped, and since the man was unable to make connections with the night train, he was forced to walk almost the entire distance to Los Angeles, arriving there twenty-four hours after being marooned.

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From the HORSELESS AGE, September, 1904

The Chanslor-Lyon Motor Supply Co., of 930 South Main Street, Los Angeles, Calif., have recently entered the automobile supply business.

From THE AUTOMOBILE, January, 1904

Los Angeles, Cal.; Jan. 11. -- The registering of automobiles under the new ordinance shows that there are about 550 automobiles in daily use here. There are very few delivery wagons as yet, but one concern now has eight Cadillacs with delivery bodies and is known as the Auto Delivery Company. The other delivery wagons are scattering and will amount to less than a score altogether.

The new White garage, at 712 Broadway, is the latest big establishment opened. The whole building is painted white and the upper floor has been engaged for club quarters by the Automobile Club of Southern California. The White garage is 170 feet deep and 60 feet wide, and was formerly a livery stable; it adjoins the new nine-story Tourist Hotel which is just reaching completion on the southeast corner of 7th Street and Broadway. Adjoining the White Garage on the south is the machine shop which makes a specialty of repairing steam cars, being better fitted for that purpose than any other repair shop in the city. Connected with this are Capt. H. D. Ryus, in charge, assisted by Robert Atkinson; Sam Theis, demonstrator, and A.E. Whiterauer at the head of the machine shop.

Another big garage which has been lately opened is that of Woodill & Hulse Electric Company. They secured the big pavilion at 526 South Los Angeles Street, which until lately was the Nazareen Church. This roomy building looks like a great skating rink, and one-half of its space is devoted to automobiles, the other half to electric manufacturing. Woodill & Hulse now have the agency for the St. Louis automobiles and the Automobile Touring Company stores its cars with them. The Automobile Touring Company is owned by J. R. Buss of Minneapolis, who has stations in this city and at Pasadena, and in the summer at both St. Paul and Minneapolis, Minn. Mr. Buss uses 1904 Autocars and 1903 Packards exclusively. He does his business from stands in front of the fashionable hotels.

A similar business is done by J. F. Sebree, of Cleveland, Ohio, who has four Peerless cars which he uses for public hire work, and they stand in front of the Westminster Hotel, which is opposite Hotel Van Nuys. He stores his cars with Olive & West at 7th Street and Broadway.

★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★

from HORSELESS AGE, August, 1904.

The officials of the Brooklyn Ferry Co. recently issued an order that automobiles should not be pushed onto or off any of the ferries of the company. Motorists using these ferries are now obliged to have their cars hauled on and off by horses.

TREASURER'S STATEMENT

Calendar Year of 1947

Cash on hand, January 1st, 1947		$ 523.34
RECEIPTS		
Dues	$ 2015.73	
Gazettes	65.00	
Other Publications	28.50	
Emblems	314.10	
Advertising	45.00	
Emblem refund (rejects)	160.00	
Miscellaneous Income	3.76	2632.09
		$ 3155.43
DISBURSEMENTS		
Printing Gazette (four issues)	1291.41	
Work on Gazette	214.97	
Cost of other Publications	18.84	
Other Stationery and Printing	258.62	
Postage	192.88	
Liability Insurance for Meets	100.00	
Emblems	142.00	
Emblem refunds	36.25	
Meet expenses	72.00	
Miscellaneous Expense	26.53	2353.50
Cash on hand, January 1st, 1948		$ 801.93

Certification

This is to certify that the above is a true and correct account of the Receipts and Disbursements of the Horseless Carriage Club for the Calendar year of 1947 as per records in my possession.

(signed) Herbert Royston
Treasurer

* * * * * * * * * * *

Highwood, Illinois,
February 2, 1948

To the Editors:

May I congratulate you on the very interesting 10th Anniversary issue of the GAZETTE recently received.

Many of the photographs shown in "Albert Mecham's Photo Album" are from negatives kindly lent to me by Thomas M. Galey, of Owensboro, Kentucky, with permission to use them in any way I saw fit—"for pleasure or profit" as he put it, but he did not want them copyrighted.

I feel that Mr. Galey may think he is slighted by no mention that they are from his negatives and I wish that you arrange that his name appears, or mention is made of the facts.

Perhaps you would like to know that I recently received a request from the Smithsonian Institution for a collection of my early photographs of pleasure and racing automobiles.

With kindest regards, I am,

Respectfully,

Albert Mecham

NEW MEMBERS SINCE DECEMBER GAZETTE

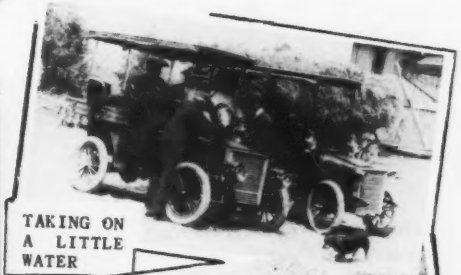
Randall J. Bartine, 1948 Preuss Rd., Los Angeles 34, Calif.
Dr. Neil Black, Med. Dent. Bldg., Klamath Falls, Ore.
Harry E. Burd, 519 Washington St., Waterloo, Iowa.
Norris L. Carty, 140 W. Reading, Pleasantville, N. J.
Joe Caskey, 1843 N. Beverly Glen, Los Angeles 24, Calif.
Gerald Chance, 241 N. Erie, Wichita 8, Kansas.
Russell L. Cuoco, 3401 Tulane Av., New Orleans, La.
Lester Cutting, 34 Hillcrest Av., Huntington, N. Y.
Leonard E. Debell, 4444 Sunset Blvd., Los Angeles, Calif.
Maurice Goldschen, 356 S. Broadway, Rm.616, Los Ang. 13,Cal.
Douglas Goodan, Box 1593, Stanford University, California
Mrs. Douglas Goodan, Box 1593, Stanford University, Calif.
J. O. Goodell, 1779 22nd Av., San Francisco, Calif.
Mrs. Wentworth Green, 218 Arnaz Dr., Beverly Hills, Calif.
Austin P. Guiles, 340 Chesnut St., West Newton 65, Mass.
Art Hall, 1633 American Av., Long Beach, Calif.
Edward S. Hansen, 312 Lakewood Blvd., Madison 4, Wis.
Earl Hazelrigg, 417 Allen Av., Glendale 1, Calif.
Clarence H. Hinke, 307 S. Second St., Maquoketa, Iowa.
G. M. Howell, P.O.Box 56, Clarcona, Fla.
Warren Geo. Kraft, 205-07 104th Av., Hollis 7, N. Y.
William E. Leicht, 2400 W. Washington Bl., Los Angeles 7,Cal.
Harold Maxwell, 2421 Altman St., Los Angeles 31, Calif.
Mihran S. Melkonian, 27 Seminary Av., Binghampton, N.Y.
Frank H. Miller, "Ashlea", Glendale, Ohio.
M. J. Mitchell, Jr., 66 Bowery, Bath, Maine.
Lee W. Nelson, 137 N. Manhattan Pl., Los Angeles 4, Calif.
J. J. O'Conner, 1300 W. 24th St., Los Angeles 7, Calif.
Max Palm III, 1 Beechcrest Lane, Cincinnati 12, Ohio.
Robert Paseman, 4343 Wikinson, No. Hollywood, California
Wm. J. Pfeiffer, 714 N. Nevada, Colo. Springs, Colo.
C. L. Pinney, R.F.D.8, Huntington, Indiana.
L. A. Rear, 1103 Monterey Rd., So. Pasadena, Calif.
Joseph A. Rein, Jr., 319 Batram Rd., Riverside, Ill.
Tom P. Riley, 4218 McFarlane Av., Burbank, Calif.
Myron Ritter, 3710 Indepenance Av., Kansas City, Mo.
James Francis Rogers, 6230 S.E.Stark St., Portland 16, Ore.
Francis R. Ross, 1902 Jones St., St. Joseph 19, Mo.
Richard G. Russo, 710 E. 107th St., Los Angeles 2, Calif.
G. Whitney Snyder, Box 85, Sewickley, Penna.
W. P. Snyder III, Box 85, Sewickley, Penna.
Chas. H. Suddeth, 641 S. Marion, Bluffton, Indiana
Mrs. Chas. H. Suddeth, 641 S. Marion, Bluffton, Ind.
J. Bertis Terrell, 1922 S. Xanthus, Tulsa, Okla.
Chas. Van Houten, Clarence, Missouri
John Way, Jr., 612 N. Sunset, Temple City, Calif.
F. A. Woodzicka, Lake Tomahawk, Wis.

★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★

Do you want to buy an antique automobile in England? We have been under the impression that it was practically impossible to buy such a car in England for the reason that members of the Veteran Car Club of Great Britain frowned on having old cars leave the country. However, we are now in receipt of a letter from L. G. Motors, 177 Archway Road, Highgate, N.6., England, that they will act as representatives for anyone wishing to buy an antique. They have a consulting technician who will assist in any purchase. They know the location of a number of antique cars available for purchase and shipment to the U. S. . If interested in securing such an automobile, write to them and mention The Horseless Carriage Club in your letter.

ALBERT MECHAM'S PHOTO ALBUM

GETTING WATER FOR A HORSELESS CARRIAGE FROM A HORSE TROUGH



TAKING ON A LITTLE WATER

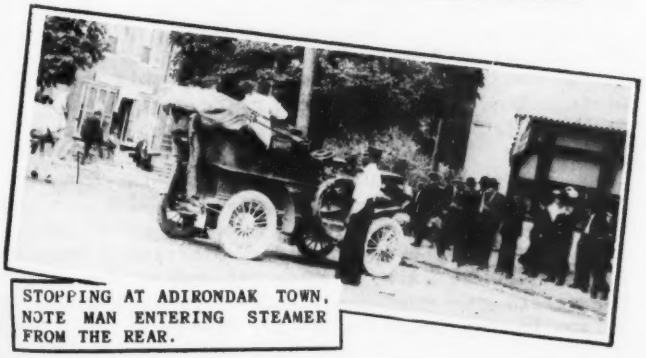
STILL MORE WATER

GIVING IT A LITTLE REST

VIEW OF MAN STEAM CLEANING HIS CLOTHES WITHOUT TAKING THEM OFF

"WHAT IS THIS CONTRAPTION, AND WHERE IS THE HORSE?"

STOPPING AT THE ECONOMY HOTEL



STOPPING AT ADIRONDAK TOWN, NOTE MAN ENTERING STEAMER FROM THE REAR.

PICNIC FOR STEAMERS ONLY

THE
HORSELESS CARRIAGE CLUB
GAZETTE

CLASSIFIED ADVERTISING RATES

FOR THE GAZETTE

For members: Free of charge for six (6) lines. Ten (10) lines for one dollar, and each additional five lines at one dollar---for example fifteen (15) lines for $2.00, twenty (20) lines for $3.00.

For non-members, write the editor. Six lines are free to members....The members want to know your "wants" or what you have "for sale", so send them in. P. O. Box 503, West Los Angeles 25, California.

WANTED

Johnson Carburetor for a 1912 E.M.F. Will pay premium price for same. Four 28 x 3 wood wheels, clincher. Body for 1903 or '04 Cadillac. Two cylinder Buick in restorable condition. Instruction books for 1906 or '08 Holsman, and 1901 or '05 Oldsmobile. Fred A. Buess, 331 W. Doran St., Glendale 3, California.

Complete transmission for 1906 Autocar. Herbert Royston, P. O. Box 503, W. Los Angeles 25, California.

Touring car, 1906 to 1912. No Fords. Allan Gold, 1323 S. Burnside Av., Los Angeles, California.

Ford 6 cylinder model "K", 1906-07. Condition not important, but must be complete. Sidney Strong, the Strong Motor Co., Atwater, Minnesota.

Automobiles, preferably in running condition, any type bodies, up to 1930. Also Auto books, instruction manuals, magazines. Did you receive a copy of my bulletin? Write, requesting a copy from Edward A. Moran, 3629 Oxford Av., Riverdale, New York.

Radiator for a model "A" 1903 Ford, or information, tips, or "leads" to where I might get one, or parts thereof. Drawing or picture would help, in case I have to make one. Would appreciate advice, as needed very much. J. F. Rogers, 1138 S.W. Sixth Av., at Madison, Portland, Oregon.

WANTED

Dayton 4" hub wire wheels, 19" diameter, or wheel hubs only. Also model N cylinder head for 1928 Marmon. McLaran Sawyer, 6143 Washington, St. Louis 12, Missouri.

Duesenberg 4 cyl., as in Roamer, Revere, etc: 4 cyl. or 8 cyl race engine. Model A passenger; also Wills Ste. Claire, Mercer, Stutz, Fontenac. Car or engine alone. Jack Carmody, 344 25th Av., San Francisco 21, California.

Ford square oil lamps. Two side and one tail. Brass or black. Also want bulb horn for 1913 Ford. Lowell Frei, 8080 Watson Rd., St. Louis 19, Missouri.

Rolls-Royce roadster or phaeton. Pungs-Finch Landaulet. Richard Bissell, 645 Fenelon Place, DuBuque, Iowa.

Copies of "Hand Book of Gasoline Automobiles" issued by the Ass'n of Licensed Automobile Mfgrs., or National Automotive Chamber of Commerce (Annual numbers). Also "Motor Age" magazines prior to 1914. Lloyd C. Partridge, 712 Federal Street, Chicago 5, Illinois.

Catalogue and instruction book for 1915 Briggs-Detroiter. Will buy, trade other catalogs and literature. Malcolm McGregor, 1059 Beacon St., Brookline, Mass.

Gas and Oil tank caps for Series 5 Mercer raceabout. Also radiator shell for this car. Marshall Wilson, P.O. box 809, Ardmore, Okla.

Coal oil parking lights for 1914 Ford, and brass headlamps for 1909 Ford, either one or a pair. Lowell Frei, 8080 Watson, St. Louis 19, Mo.

Any model Stoddard-Dayton automobile, and any literature or pictures of Stoddard-Dayton. L. R. Lohr, 1401 Ridge Av., Evanston, Illinois.

An old fashioned pop bottle—the kind with round top to fit mouth and wire stopper that pushes into bottle to get pop out. If you are 50 years or older, you know what I mean. Arthur E. Twohy, 400 N. Kenmore, Los Angeles 4, California.

Duesenberg model "A" phaeton, 1925 or earlier. Condition unimportant if reasonably complete. Send full details and price. Stacy G. Carkhuff. Jr., 2760 Burlingame Rd., Topeka, Kansas

Mercer Raceabout, or Stutz Bearcat. Edw. S. Hansen, 312 Lakewood Bl., Madison 4, Wisc.

Ford cars, 1908 and older, preferably in good condition. Also a steam car and an old Maxwell in good condition. Lowell Frei, 8080 Watson Rd., St. Louis County 19, Missouri.

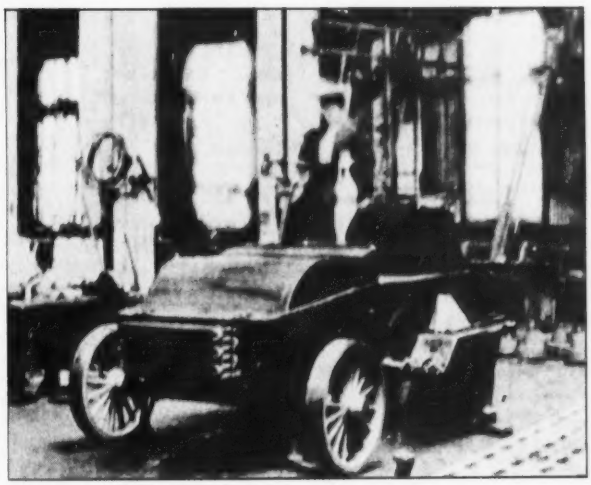
WANTED

Carburetor & intake manifold for 1910-11 Pope-Hartford. Ben Sharpsteen, 2324 Panorama Dr., La Crescenta, California

1911, 1912, or 1913 Pope-Hartford Catalog, by L. C. Partridge, 712 Federal St., Chicago 5, Ill.

Tonneau seats, any kind. Will buy or trade horns, lamps, or other items for them. N. C. Ensworth, Canaan, New York.

Am getting occasional inquiries for old, and even new (!) Detroit Electrics. My own pair (1916 cabriolet and 1939 chassis) are definitely not for sale, but since this make is my special interest, I'll be glad to hear of any that are offered and refer. Jamison Handy, Jr., 3422 W. 59th place, Los Angeles 43, California.



INFORMATION, PLEASE

WHO can give me the made and date of the above vehicle and, if possible, the location. Ransom Matthews, L. A. County Museum, Los Angeles, California.

FOR SALE

Pictures of old-time cars in rural settings. Photos of old-time racing cars, many to select from. A sample of these are published in this issue in "Albert Mecham's Photo Album". Send for descriptive list of cars and prices. Albert Mecham, 140 Michigan Av., Highwood, Illinois.

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Actual photos of antique cars, taken by myself for my own collection. Pictures show good detail of cars. Send for list and price. Stephen R. Maxon, 211-23 35 Av., Bayside, New York City, N.Y.

FOR SALE

1906 McINTYRE

1906 McIntyre car, A-1 mechanical condition, made in Auburn, Indiana. Specs: 4 cyl., air cooled and overhead valves, 3 speed planetary transmission, right hand drive, surry wooden body in perfect condition—back portion removable to convert to roadster, drop-curtain windshield. Original—nothing changed except new set of solid 1-3/4" tread tires. Make offer. George's Service Garage, 1209 Meldon Av., Donora, Penna. Phone 2J.

Maxwell 2 cyl. roadster, 1908, completely rebuilt, newly painted. ...The most perfectly restored Maxwell in the country. J. E. Vanderveer, 26 Emerson St., Kingston, N. Y.

Collectors - Dealers! 1905 Northern, $450. Two cylinder opposed touring car. In splendid mechanical condition. Extensive reconditioning just completed. Ideal for auto dealer's show room. Glenn E. Thomas Co., Anaheim at Elm, Long Beach 13, California. Phone 76491.

Rolls-Royce "Phantom I" limo-sedan, upholstery good, tires good, valves just reground. Price, $350. L. F. Bothwell, Woodland Hills, California.

28 x 3 tires at $3.00 each, rubber not hard. Lindley F. Bothwell, Woodland Hills, Cal.

FOR SALE

1908 Stoddard-Dayton 4 Pas., excellent condition. 1923 Mercer raceabout. Many others. Lamps, tires, rims, Horns. Antique and modern automobiles repaired. Reasonable prices. Art Austria's Simplex Garage, 200 Mildred Av., Venice, California.

Sale or trade; 1924 Rickenbacker model "C" touring, good condition, very reasonable. Alan Gold, 1323 S. Burnside, Los Angeles, California.

Duesenberg model "J" speedster, completely rebuilt and modernized. Has both 17" and 19" wheels with new Firestone tires and tubes. New leather upholstery, new paint, and new everything else that needed replacing. This car is in new condition. Complete details on request. Stacy G. Carkhuff, Jr., 2760 Bulringame Rd., Topeka, Kans. Phone 3-1110.

Stutz, think ca. 1912-13, 4 cyl. Wisconsin engine, no fenders, excellent running condition, good tires. Might accept old Reo, Franklin, etc. in trade. 1914-16 White 7 passenger touring car, fine condition, needs tires and top, this is the 4 cyl. 16 valve, 4 speed model. Oregon owner wants offer. Earl W. Jones, P.O.box 126, Seal Beach, California.

1913 Overland touring, with M.S.L. starter built into flywheel. 1915 Chalmers roadster with overhead camshaft. 1915 Owen Magnetic touring. Ransom Matthews, 186 Grove St., Sierra Madre, Cal.

1916 Scripps-Booth roadster, good upholstery, wire wheels, new extra tire and tube, recent paint job, new chrome plate, completely rebuilt, motor rebored, crankshaft ground, new pistons, bearings, and gears. $500. Hunter McConnell, Jr., 1148 Elberon Av., San Pedro, Calif.

Model AB Maxwell. Copies of HORSELESS AGE, 1902, 03, 04. Pair Vesta Drum Head lamps. Brand new Roll-Royce cylinder head gasket for English Phantom I, never out of wrapper, $9. Rolls-Royce Sales Manual describing and picturing Phantom III, a stunning book with large color plates, line drawings. 1911 Hudson, rear end converted to pick-up. Richard Bissell, 645 Fenelon Place, DuBuque, Iowa.

Mercedes-Benz conv. coupé, model S. 1930. Erdman & Rossi body with burl walnut facia and moldings. Recently completely overhauled. A joy to drive. W. H. Leathers, 88 Summer Street, Hingham, Mass.

2 brand new 34 x 4½ Firestone tires and 1 34 x 4½ Firestone tube - straight from the factory. Or will trade for 35 x 4½ tire and tube, or 34 x 4 tires. Owen C. Betry, 802 E. Colorado St., Glendale 6, California.

FOR SALE

The One and Only Harry A. Weisbord's House of Automobiliana rides again—with thousands of early auto magazines, literature, catalogues, instruction books, etc., and our usual policy of honest conscientious and reliable service for which we have been known for the past ten years. Now breaking up large collection of HORSELESS AGE from 1905 to 1916 and will fill your missing dates at $1.50 per copy. Postage paid on five or more. Also breaking up collection of CYCLE AND AUTO TRADE JOURNAL from 1909 to 1920 (none for 1913, 1915, or 1916. New York and Chicago Show Numbers and Complete Car Reviews at $4.00 per copy; all others at $2.50 per copy post paid in the U.S.A. Do not hesitate to send me your want lists. I may have that item you are so anxious to acquire. All correspondence will be answered. Name plates and other auto accessories available. Harry A. Weisbord, 5728 Rodman St., Philadelphia 43, Pennsylvania.

Two Mercer series 5 engines. One is complete, ready to set in frame. The other is complete excepting oil pan, and is disassembled. Price $100.00 for either. Marshall Wilson, P.O. Box 809, Ardmore, Oklahoma.

1903 Autocar roadster, 1909 Buick touring, 1903 Cadillac touring, 1903 Ford touring, 1910 Ford roadster, 1917 Ford roadster, 1909 Hupmobile roadster, 1903 Oldsmobile roadster, 1902 International truck, 1911 Packard touring, 1903 Pierce Stanhope, 1904 Stanley steamer touring, 1913 Renault touring, 1928 Chevrolet touring. Will sell individually or the entire lot. Better deal on the lot. All stored in one location and will be shown upon appointment. Maynard Dowell, 332 South Michigan Av., Chicago 4, Ill.

Antique Automobile Insurance. Why take chances? One serious accident might cost you your lifetime savings. Have your antique car or cars insured against Personal Liability and Property Damage claims. The E. Broox Randall & Sons Insurance Company will take care of this for you. All you have to do is to insure your modern transportation automobile with them at the regular rates and then for 25% additional, per car, they will insure your antique car, or cars, for Personal Liability and Property Damage. You can have Fire and Theft insurance on your antique cars, also. Value of cars to be determined by a special committee appointed by your Board of Directors. Get all information from Mr. Wimberly, Phone HIllside 6111. E. Broox Randall & Sons, 5901 Sunset Bl. Los Angeles, Cal.

Sale or trade: 1902 Wayne 2 cyl. opposed, chain drive roadster. Engine #401, serial #591. Stored in Akron, Ohio. Make offer, or will trade for early steamer or electric car. Alva W. Davis, 3737 Oracle Rd., Tucson, Arizona. Will send three different photos of this Wayne for 50¢.

FOR SALE

Haynes-Apperson, 2 cyl. ca. 1903, $750. Reo, 1 cyl. no body, as is, fine mechanically, $200. Buick White Streak roadster, 4 cyl., all complete but needs work, $500. Franklin 4 cyl. roadster, fine mechanically, all complete except lamps, needs paint, $700. Ford model "T", ca. 1912, tonneau missing, needs plenty work, $125, or also less radiator, $85. Buick 1913 tour., fine mechanically, splendid paint job (new), low mileage, all complete with top, windshield, speedometer, spare tire, etc., you will not have to spend a cent on this car fixing it up, $850. Cadillac 4 cyl. 1913 coupe, fine mechanically, everything complete, good 37x5 tires, $1500. Cadillac one cyl., rear entrance tonneau, fine mechanically, 30x3 tires, $1250. American Underslung touring (the big one) 1915, 6 cyl., O.K. mechanically, low mileage, all complete with top and windshield, 37 x 5 tires, needs paint, $1500. This is the only American Underslung I know of for sale in this country. Photos of any car, 50¢. Two bound volumes of MOTOR for 1907 and 1908, complete in mint condition, $150 per volume. AUTO TRADE JOURNALS 1908 and later, $6.00 each. Automobile Sales Catalogs, mostly around 1906 to 1912, mostly priced from $5.00 to $12.50. Send list of those wanted. Acetylene headlamps, $65 per pair up; Rushmores (small) $100; large Mercer type, $150. Oil sidelamps, $40 per pair up. Tail lights, $25. Brass horns, complete with reed and tube (no bulb), new $45; others as low as $25. Brand new Model "T" brass radiator, $75. Motor from one cyl. Packard, $250. Motor from one cyl. Pierce (Motorette or Stanhope) $200. Also have tubular frame and other parts from this car. Buick 1913 motor (4 cyl.) complete with transmission, $100. Twohy Lumber Co., 400 N. Kenmore Av., Los Angeles 4, California

My 1915 Crane Simplex limousine. Its history described in last issue of Bulb Horn. Car in perfect condition, both mechanically and coach work. Have replaced original engine, which had gone 345,000 miles, with new engine with 40,000 miles. Price, $1200.00. John Paul Stack, Henry Hudson Hotel, New York City.

1923 Lancia tourer, new tubes, ignition, woodwork, paint. As is, $350. Swap for steamer, Stutz 4, or Underslung. Trade on Duesenberg J. Have plans, model old cars. G. Codding, 942 So. Gramercy Dr., Los Angeles 6, California.

1917 Hudson super-six with all aluminum limousine body. $500, or trade. Dale Aseltine, 361 Rennie Ave., Venice, California.

For sale or trade: 1914 Premier touring car, new tires, tubes, & paint. Upholstery perfect. Mechanically perfect. Just the car for the H.C.C. tour. Bob's Brake Service, 811 N. Western Av., Los Angeles 27, California.

FOR SALE

Cole 8 sedan, original, good condition, $150.00. Also 1919 Studebaker club roadster, excellent, $250. C. T. Hanson, 101 Marsh Ave., Wilmar, California.

Services Available. The Antique Auto Shop offers complete facilities for restoration, partial or complete, of any car—domestic or foreign. Member Ralph Buckley and Henry Heinsohn, Props. Ventnor Hts., New Jersey.

Tires, sizes 6.00-6.50-21, 6.00-21, and 7.00-21. Samuel E. Baily, 45 E. Levering Mill Road, Bala Cynwyd, Penna.

1914 Empire touring, 1917 Oakland touring, 1923 Packard town car, 1905 Maxwell roadster, 1923 Essex touring, 25" Houk wire wheels, pair large drum headlamps similar to Rolls-Royce 1926, 7 new 31 x 4 tires, 7 used and 1 new 32 x 4½ tires. Bob Graham, 1443 Jefferson, Kansas Cy., Mo.

Hey, you brass polishers! Throw away the elbow-grease. You won't need it any longer. Send for a bottle of the new miracle polish, "Mel-O-Tone". Tarnish and corrosion disappear as if by magic. You will be pleasantly amazed. Harmless to all metals. 2 ounce bottle, 25¢; pint, 75¢. Add postage. James F. Rogers, Francis & Hopkins Motors, S. W. 6th and Madison, Portland 4, Oregon.

E.M.F. 1909, Entirely reconditioned, completely equipped. 1947 Glidden tour participant. Have $850 in this car; will take $700 at East Princeton, Mass. Also 1910 Hupp roadster, completely equipped, new radiator shell and new Firestone tires and tubes toward restoration. Have $500 in this car, will take $450 at East Princeton, Mass. A. P. Guiles, 340 Chesnut St., West Newton 65, Massechusetts.

Have you received your copy of my mail bid sale? Send your request to Edward A. Moran, 3629 Oxford Av., Riverdale, New York.

1903 Cadillac, one cylinder, motor #708, 1911 Ford touring. Two cylinder Sears buggy. Ford and Cadillac in excellent condition, Sears fair. If you are interested, I will be glad to send pictures and prices. Frank McKee, Jr., 615 North Pearl, Joplin, Missouri.

Four 36x4" clincher tires in good condition. All white with a lot of rubber. $50.00 for all four. Lowell Frei, 8080 Watson Rd., St. Louis Co. 19, Missouri.

1915 Model "T" Ford roadster, new top, paint, perfect running condition. $250 - original owner, Mrs. Davis, 4528 Frederick St., La Crescenta, Calif.

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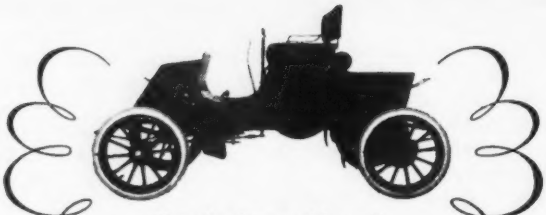

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